

Evaluation of a Scratchpad Template as an Online Database for the University of Guam Insect Collection



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Desirable Features for an Online Collection Database

Free and open source

Reliable data security / backup

Flexible data security (user permissions)

Web browser used for data entry and information
delivery

Specimen records compliant with Darwin Core

Storage for images, bibliographic data, informal
notes, etc.

Data shared via GBIF

LifeDesks and Scratchpads



LifeDesks is part of the Encyclopedia of Life Project.

ScratchPads is a project managed by the Natural History Museum, London.

Both are Drupal templates hosted for free.

My evaluation sites are at:

<http://micronesianinsects.lifedesks.org/>

<http://guaminsects.myspecies.info/>



Scratchpads

Virtual Research Environments

for taxonomic and biodiversity related data



UNIVERSITY OF
OXFORD





so...

what are

the

Scratchpads?



Where to find and how to cite this presentation

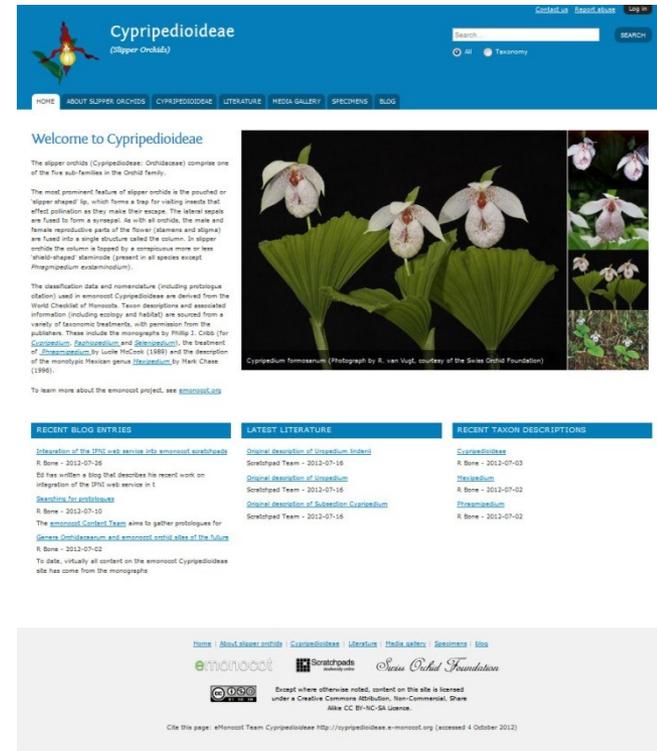
Scratchpads introductory presentation. Dimitrios Koureas,
Laurence Livermore. figshare. 2013.

doi:10.6084/m9.figshare.640101

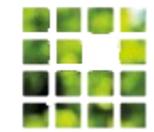


What are Scratchpads?

- Hosted websites for biodiversity data
- Virtual research & publication platform
- Completely open access & open source
- Modular & flexible



The screenshot displays the website for Cyripedioideae (Slipper Orchids). The header features the title "Cyripedioideae (Slipper Orchids)" and a search bar. Below the header, there are navigation tabs for "HOME", "ABOUT SLIPPER ORCHIDS", "CYRIPEDIOIDEAE", "LITERATURE", "MEDIA GALLERY", "SPECIMENS", and "BLOG". The main content area includes a "Welcome to Cyripedioideae" section with introductory text and a photograph of several white slipper orchids. Below this, there are three columns of "RECENT BLOG ENTRIES", "LATEST LITERATURE", and "RECENT TAXON DESCRIPTIONS". The footer contains logos for eMonocot, Scratchpads, and the Steve Reichel Foundation, along with a Creative Commons license notice and a page URL.



What are Scratchpads?

facilitate

development of online research communities

through

standardized environment of entering and curating data

that allow

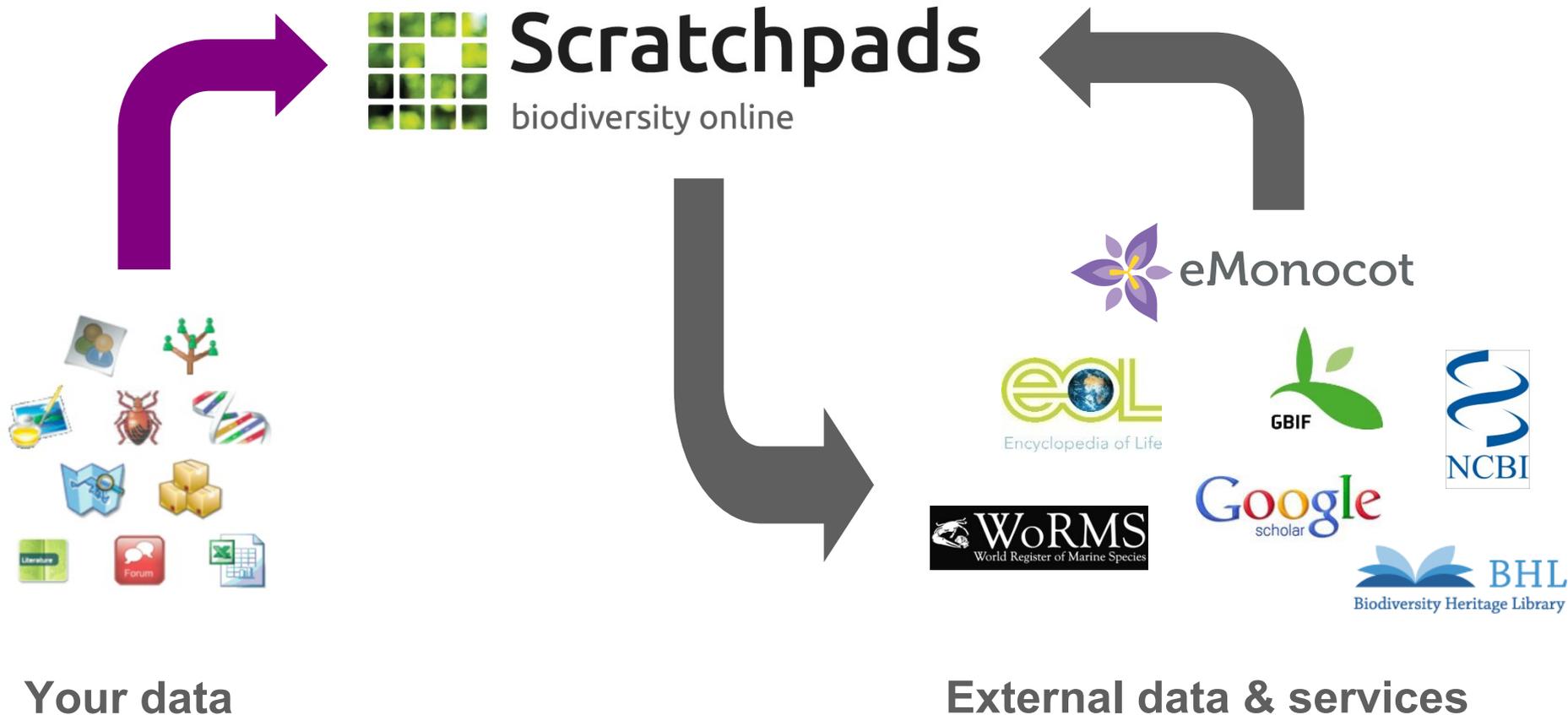
sharing and interlinking

and

dissemination of research products

The Scratchpads concept

A Scratchpad is a website that holds data for you and your community





Taxa

(Classifications, taxon profiles, specimens, literature, images, maps, phenotypic, genotypic & morphometric datasets, keys, phylogenies)



Conservation



Projects



Regions



Societies



the main

features

Classification term oriented system

**Biological
classifications**

Taxonomies

**Non-biological
classifications**

Hierarchical controlled
vocabularies

Dynamic Biological Classifications

CHECKLIST

- Thymus* (4)
 - Hyphodromi* (10)
 - Pseudothymbra* (5)
 - Serpyllum* (17)
 - Thymus bulgaricus*
 - Thymus comptus*
 - Thymus degenii*
 - Thymus glabrescens* (1)
 - Thymus heterotrichus*
 - Thymus hirsutus*
 - Thymus ilicianus*
 - Thymus longedentatus*
 - Thymus longicaulis* (3)
 - Thymus oenipontanus* (1)
 - Thymus pannonicus*
 - Thymus praecox* (3)
 - Thymus praecox* subsp. *jankae*
 - Thymus praecox* subsp. *polytrichus* (1)
 - = *Thymus vandasii*
 - Thymus praecox* subsp. *zyqiformis*
 - Thymus pulegioides* (1)
 - Thymus serpyllum*
 - Thymus sibthorpii* (1)
 - Thymus stoianovii*
 - Thymus thracicus*
 - Teucrioides* (3)

- Manually entered or imported
- Auto generated

Kew
PLANTS PEOPLE
POSSIBILITIES

eOL
Encyclopedia of Life



WoRMS
World Register of Marine Species

The main features

Taxon pages

- Overview of data related to taxon
- Generated from tagged content

Cyripedioideae
(Slipper Orchids)

Search... SEARCH

● All ○ Taxonomy

HOME ABOUT SLIPPER ORCHIDS CYRIPEDIOIDEAE LITERATURE MEDIA GALLERY SPECIMENS BLOG

Home » Cyripedioideae » Cyripedium » Section Subtropica » Cyripedium subtropicum

CYRIPEDIOIDEAE

- Cyripedioideae (1020)
- Cyripedium (21)
 - Arietinum
 - Calceolaria
 - Calceolus
 - Cripidium
 - Criogenes
 - Cyripedillon
 - Fissipes
 - Hypodema
 - Secodon
 - Schizopedium
 - Section Acaulla (1)
 - Section Arietinum (2)
 - Section Bifolia (3)
 - Section Cyripedium (15)
 - Section Enantiopedium (1)
 - Section Fiabellinervia (2)
 - Section Trapeana (4)
 - Section Obtusipetala (1)
 - Section Retinervia (3)
 - Section Subtropica (2)
 - Cyripedium sinqchi
 - Cyripedium subtropicum**
 - Cyripedium wardii
 - Section Trigonopedia (1)
 - Mexipedium (1)
 - Paphiopedilum (10)
 - Phragmipedium (28)
 - Selenipedium (6)

Cyripedium subtropicum S.C.Chen & K.Y.Lang

Overview Descriptions Synonyms Media Literature Checklist Stats

NOMENCLATURE

Genus: [Cyripedium](#)

Section: [Section Subtropica](#)

Species: *Cyripedium subtropicum*

Usage: accepted

Protologue Citation: [S.C.Chen & K.Y.Lang, Acta Phytotax. Sin. 24: 317 \(1986\)](#)

MEDIA

Cyripedium subtropicum (Photograph by Hong Jlang, courtesy of the Swiss Orchid Foundation)

SUMMARY

A large terrestrial herb to 1.5 m tall; rhizome short; roots fleshy, 2-3 mm in diameter. Stem to 1 cm in diameter, pubescent, 9- to 10-leaved, densely pubescent, covered below by several sheaths, 2.5-9.5 cm long, pubescent. Leaves erect-spreading, slender, elliptic-lanceolate or oblong-elliptic, acuminate, 21-33 cm long, 7.7-10.5 cm wide, glabrous above, pubescent on and between the veins beneath, margins more or less ciliate, gradually narrowing into a 1-2 cm long petiole but not articulated to the sheathing base. Raceme terminal, seven-flowered; peduncle c. 21 cm long; rachis reddish hairy, c. 1.5 cm long; bracts erect-spreading but later reflexed, lanceolate, acute, 1-2.8 cm long, 0.15-0.3 cm wide, reddish hairy. Flowers showy, yellow with a purple-spotted lip; pedicel and ovary c. 4.5 cm long, densely glandular and brownish pilose. Dorsal sepal ovate-elliptic, cuspidate-acuminate, 3.5-3.9 cm long, 2.2-2.5 cm wide, reddish hairy on outer surface; synsepal ovate-elliptic, bifid at apex, a little wider than the dorsal sepal, ciliate, reddish hairy on outside. Petals spreading, suboblong-ovate, acute or apiculate, 3-3.6 cm long, 0.9-1.1 cm wide, nine-veined, the base of the outside and the veins inside reddish hairy, basal margins ciliate. Lip slipper-shaped, slightly dependent-parallel, obovoid-ellipsoid, 4-4.6 cm long, c. 3 cm wide, glabrous on outside, pilose within at the base, the side lobes oblong, incurved, the mouth suboblong. Column 1.3 cm long; staminode stalked, ligulate-spathulate, obtuse, stipitate at the base, slightly upcurved at tip, 0.5 cm long, 0.15 cm wide.

Bibliography management

Literature

Authors ▲	Year	Title
Couvet, D, Gouyon, PH, Kjellberg, F, Valdeyron, G	1985	La différenciation nucléocytoplasmique entre populations: une cause de l'existence de mâle-steriles dans les populations naturelles de Thym
Cruz, T, Jiménez, J, Zarzuelo, A, Cabo, MM	1989	The spasmolytic activity of the essential oil of Thymus baeticus Boiss in rats
Cuguen, J, Couvet, D, Thompson, JD, Tarayre, M, Saumitou-Laprade, P	1997	The spatial genetic structure of cytoplasmic (cpDNA) and nuclear (allozyme) markers within and among populations of the gynodioecious Thymus vulgaris (Labiatae) in southern France
Cuguen, J, Couvet, D, Thompson, JD, Tarayre, M, Saumitou-Laprade, P	1997	The spatial genetic structure of cytoplasmic (cpDNA) and nuclear (allozyme) markers within and among populations of the gynodioecious Thymus vulgaris (Labiatae) in southern France
Abu-Darwish, MS, Alu'datt, MH, Al-Tawaha, AR, Ereifej, K, Almajwal, A, Odat, N, Al Khateeb, W	2011	Seasonal variation in essential oil yield and composition from Thymus vulgaris L. during different growth stages in the south of Jordan

Clone of The effect of selected herb extracts on superoxide dismutase activity in Jurkat cells

Publication Type:	Journal Article
Year of Publication:	2007
Authors:	Testa, A , Testb, B , Testc, C
Journal:	Advances in Clinical and Experimental Medicine/Advances in Clinical and Experimental Medicine
Volume:	16
Issue:	3
Pagination:	361-364
Keywords:	Jurkat cells , Lamiaceae herbs , Polyphenols , Superoxide dismutase
Abstract:	Background: Numerous dietary and medicinal herbs containing high levels of polyphenolic compounds exert antioxidative properties which are beneficial in the prophylaxis of many diseases, including cancer and atherosclerosis. Superoxide dismutase (SOD) is an enzyme scavenging superoxide radicals. It is hypothesized that some antioxidative effects of polyphenols may occur through interaction with this enzyme. Objective: The aim of this study was to assess the influence of polyphenolic herb extracts on SOD activity in human leukemia cells. Material and Methods: Aqueous extracts containing polyphenolic fractions were prepared from Thymus serpyllum (Ts), Thymus vulgaris (Tv), Majorana hortensis (Mh), and Mentha piperita (Mp). The experiments were conducted on human Jurkat cells, which were exposed to the Ts, Tv, Mh, or Mp polyphenolic fractions at concentrations of 10-500 µg/ml for 0.5, 1, or 2 hours. SOD activity was measured spectrophotometrically using a modified RANSOD kit protocol. The results were analyzed using the Repeated Measures Analysis of Variance (ANOVA) design in Statistica version 6 software. All effects were regarded as significant at a significance level of p < 0.05. Results: The analysis of the results suggests a stimulatory effect of the extracts which was most evident at shorter incubation times (0.5 and 1 hour) and at concentrations of 50 and 500 µg/ml. However, in the case of Ts and Mh, 2-hour incubation at the highest concentration (500 µg/ml) also resulted in a significant increase in enzymatic activity. In contrast, the lowest concentration of the extracts (10 µg/ml) exhibited no significant effect on SOD. Conclusions: The stimulation of SOD activity in Jurkat cells under the influence of Lamiaceae herb polyphenolic fractions suggests that some antioxidative effects of polyphenols may result from direct interaction with the free radical-scavenging enzyme. © Copyright by Silesian Piasts University of Medicine in Wrocław.
URL:	http://www.scopus.com/scopus/inward/record.url?eid=2-s2.0-34547133502&partnerID=40&rel=R6.5.0

Tue, 2013-01-29 11:26 -- [maintainer](#)

[Add new comment](#) [Google Scholar](#) [BibTex](#) [RTF](#) [XML](#) [RIS](#)

- An inbuilt Bibliography manager
- Faceted browsing
- Taxon tagging and free keywords
- Import from and export to all major formats

[BibTex](#) [RTF](#) [XML](#) [RIS](#)

Export selection as [BibTex](#) [RTF](#) [XML](#) [RIS](#)

FILTER BY CONTRIBUTOR:

[maintainer \(3\)](#)

[Scratchpad Team \(308\)](#)

TAXONOMIC NAME

There are no facets available to filter on.

TERMS

There are no facets available to filter on.

FILTER BY CONTENT TYPE:

[Biblio \(311\)](#)

BIBLIO: SECONDARY TITLE

Enter journal...

[\(37\)](#)

Specimen/Observation data

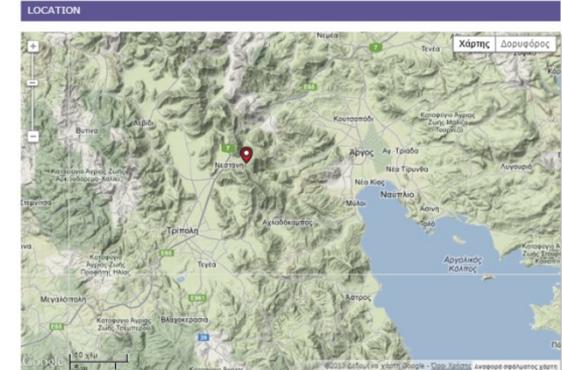
Specimens

Required	Taxonomy	Collection	Miscellaneous	Location
Specimen	Basis of record	Catalogue number	Collection code	Institution code
View specimen	Preserved Specimen	8638	ATHU	ATHU
View specimen	Preserved Specimen	8652	ATHU	ATHU
View specimen	Preserved Specimen	866	ATHU	ATHU
View specimen	Preserved Specimen	8662	ATHU	ATHU
View specimen	Preserved Specimen	8684	ATHU	ATHU
View specimen	Preserved Specimen	9171	ATHU	ATHU
View specimen	Preserved Specimen	9654	ATHU	ATHU
View specimen	Preserved Specimen	9666	ATHU	ATHU
View specimen	Preserved Specimen	9756	ATHU	ATHU
View specimen	Preserved Specimen	9793	ATHU	ATHU
View specimen	Preserved Specimen	9817	ATHU	ATHU
View specimen	Preserved Specimen	9819	ATHU	ATHU
View specimen	Preserved Specimen	100320161	B	B
View specimen	Preserved Specimen	100320162	B	B

« 2 of 6 »

- Annotated full specimen/observation records
- Linked to images and georeferenced

Basis of record:	Preserved Specimen
Institution code:	ATHU
Collection code:	ATHU
Catalogue number:	1191
Taxonomic name:	<i>Thymus striatus</i> (Checklist)
Date collected:	Wednesday, May 31, 2006

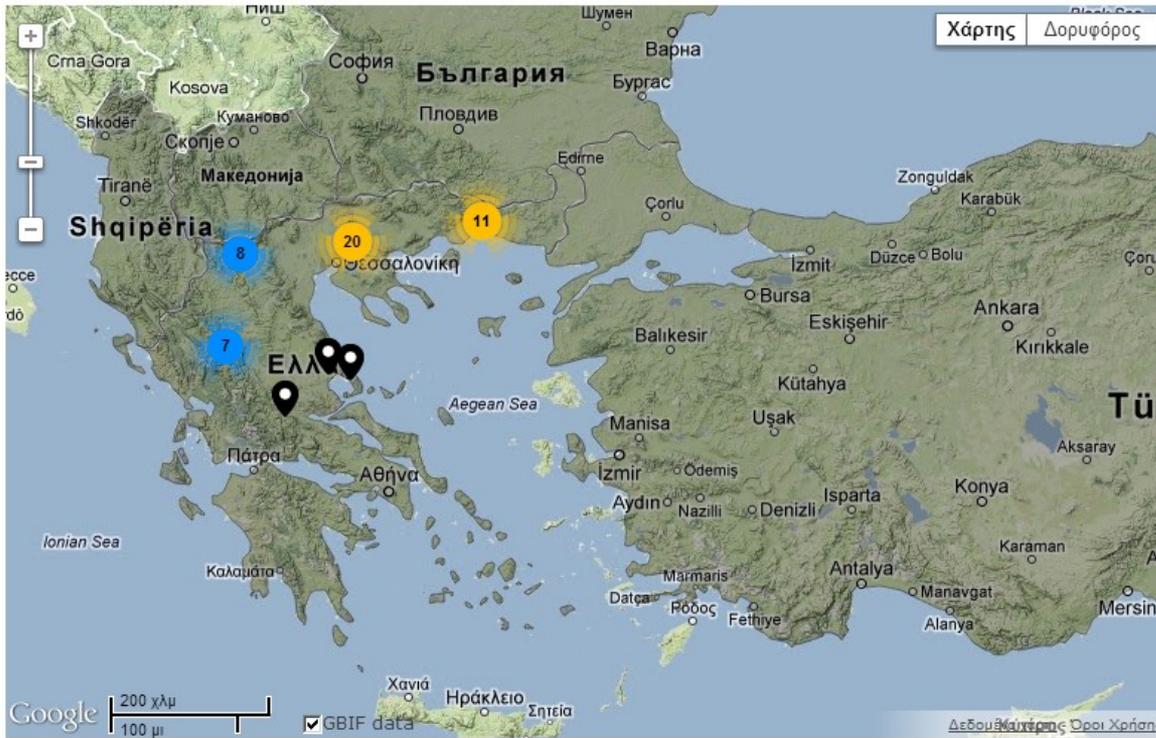


Continent/Ocean:	Europe
Country:	Greece
State/Province:	Argolis
County:	Eparchia Argous, Artemisio
Locality:	c. 11,8 km along the road that connects the village of Nestani with the village of Tourniki. The E medium and upper parts of the main summit, above the Abies cephalonica timberline. Rocks, steep slopes and scree
Geodetic datum:	WGS84
Verbatim Coordinate System:	decimal degrees
Maximum elevation:	1 750 m



Distribution maps

DISTRIBUTION



■ Google maps based

■ Data layers



Occurrence data



Distribution data
TDWG regions



GBIF data

Character matrices – Key construction

Section Serpyllum

TAXONOMIC NAME *

- THYMUS
 - HYPHODROMI
 - PSEUDOTHYMBRA
 - SERPYLLUM
 - THYMUS BULGARICUS
 - THYMUS COMPTUS
 - THYMUS DEGENII
 - THYMUS GLABRESCENS
 - THYMUS HETEROTRICHUS
 - THYMUS HIRSUTUS
 - THYMUS ILICIANUS
 - THYMUS LONGEDENTATUS
 - THYMUS LONGICAULIS
 - THYMUS OENIPONTANUS
 - THYMUS PANNONICUS
 - THYMUS PRAECOX
 - THYMUS PULEGIOIDES
 - THYMUS SERPYLLUM
 - THYMUS SIBTHORPII
 - THYMUS STOJANOVII

Section Serpyllum

Calyx				
Classification	1	2	3	4
Thymus comptus	3.5			0
Thymus heterotrichus	3.4			1
Thymus longicaulis	2.8			
Thymus praecox	3.2			
Thymus pulegioides	3.2			
Thymus serpyllum	2.6			
Thymus sibthorpii	3			
Thymus thracicus	3.1			

Calyx lower teeth
 Numeric character

Calyx lower teeth
 Millimetre

- Quantitative or qualitative characters
- Auto generation of keys
- Taxon based matrices
[Specimens based character matrices]

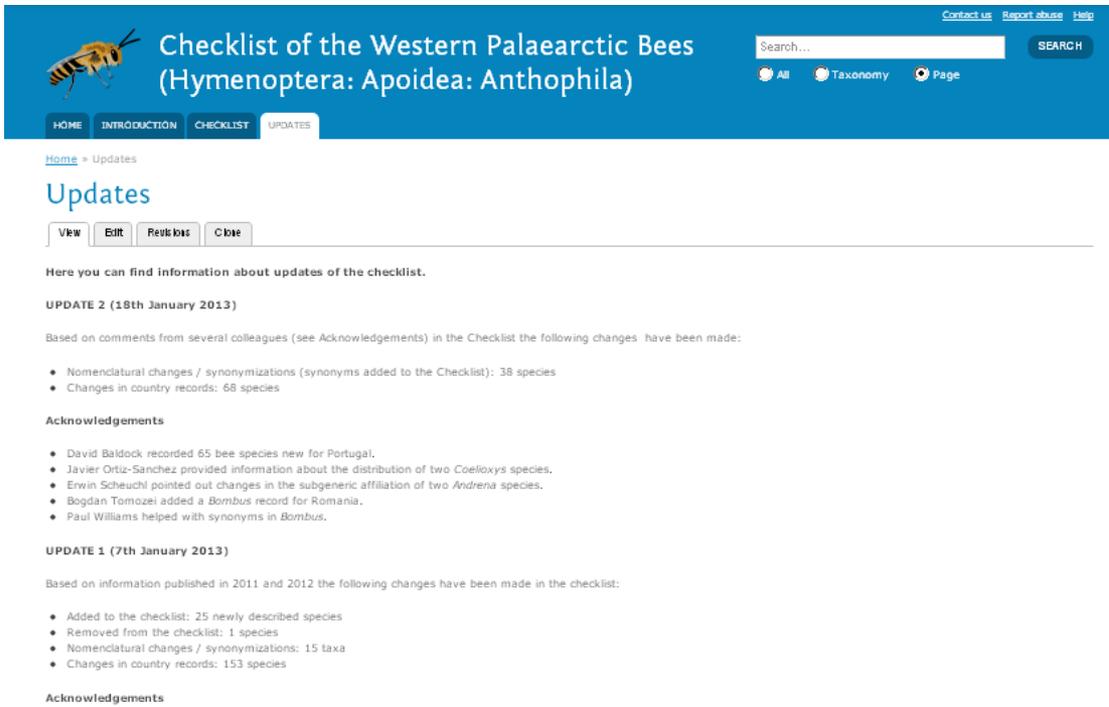
Media handling



- Bulk upload
- Metadata (incl. EXIF)
- Media galleries

The main features

Generation of custom pages



The screenshot shows the website interface for the 'Checklist of the Western Palaearctic Bees (Hymenoptera: Apoidea: Anthophila)'. The page is titled 'Updates' and features a navigation menu with 'HOME', 'INTRODUCTION', 'CHECKLIST', and 'UPDATES'. A search bar is present with a 'SEARCH' button. The main content area includes a sub-header 'Updates' with 'View', 'Edit', 'Revisions', and 'Close' buttons. The text states: 'Here you can find information about updates of the checklist.' It then lists two updates: 'UPDATE 2 (18th January 2013)' and 'UPDATE 1 (7th January 2013)'. Each update includes a list of changes and an 'Acknowledgements' section.

Checklist of the Western Palaearctic Bees
(Hymenoptera: Apoidea: Anthophila)

HOME INTRODUCTION CHECKLIST UPDATES

Updates

View Edit Revisions Close

Here you can find information about updates of the checklist.

UPDATE 2 (18th January 2013)

Based on comments from several colleagues (see Acknowledgements) in the Checklist the following changes have been made:

- Nomenclatural changes / synonymizations (synonyms added to the Checklist): 38 species
- Changes in country records: 68 species

Acknowledgements

- David Baldock recorded 65 bee species new for Portugal.
- Javier Ortiz-Sanchez provided information about the distribution of two *Coelioxys* species.
- Erwin Scheuchl pointed out changes in the subgeneric affiliation of two *Andrena* species.
- Bogdan Tomozei added a *Bombus* record for Romania.
- Paul Williams helped with synonyms in *Bombus*.

UPDATE 1 (7th January 2013)

Based on information published in 2011 and 2012 the following changes have been made in the checklist:

- Added to the checklist: 25 newly described species
- Removed from the checklist: 1 species
- Nomenclatural changes / synonymizations: 15 taxa
- Changes in country records: 153 species

Acknowledgements

■ Tagged or not

■ External RSS

■ Twitter feeds

■ Media files

Enhanced communication tools

[Home](#) » [Forums](#) » [General discussion](#) » Welcome to the IHS Forum!

FORUM TOPIC

[View all Forum topics](#)

FORUMS

[General discussion](#)

Welcome to the IHS Forum!

Forums:

[General discussion](#)

Welcome to the International Heteropterists' Society forums!

At the moment all genuine site users have access to the forums.

If you want additional forum categories, please ask and we will consider them.

2012-04-12 10:57 -- [L Livermore](#)

[Add new comment](#)

[Largidae](#)

Submitted by [Schönitzer](#) on 2012-04-12 12:02

I am responsible for the Heteroptera collection in ZSM (Munich), but I am not a Heteropterist. Please copuld anybody tell me if there is any recent catalogue of the genera of Largidae? In some cases we have problems if some genera belong to Pyrrhocoridae or Largidae? or is it possible to check such things in the IHS webpage?

See: http://www.zsm.mwn.de/rhw/heteroptera_ph-pv.htm

thanks

Klaus Schönitzer

schoenitzer@zsm.mwn.de

- Working groups
- Forums
- Blog entries
- Webforms
- Newsletters
- RSS syndication
- Inbuilt comments

data

mobilisation



BRAHMS



Google
scholar



more on the way...

The Publication module



Open-access
journal



Likes & Dislikes

The Scratchpad template was not specifically designed as a collections database management system (DBMS)

Missing features: label printer, loans forms, etc.

Useful features not commonly found in collections DBMS:

- Blogs and forums (for incidental observations, special projects)

- Group pages with restricted access (bed bug reports, rare butterfly sightings)

Likes

Free hosting, backups, development

No installation: all interaction via web browser

Open source will allow me the option of "rolling my own" site if I choose to

Display of images at variable resolutions is good

Darwin Core data standards used for specimens and locations

Automatic discovery of associated data on the web via "Taxon Pages"

Dislikes

Batch import of data is extremely slow

Having problems merging imported data with existing data when importing taxonomic hierarchies

No direct access to underlying MySQL database for ad hoc queries using SQL

Note: the Drupal Views Module can be used to do almost anything with the data, if you know how to use it

Dislikes



Scrachpads: the name is lame

Acknowledgments

Many thanks to the Natural History
Museum and the Scratchpad

Developers:

Simon Rycroft

Vince Smith

Irina Brake

And especially Dimitrios Koreas

Links to More Info

Scratchpads: a data-publishing framework to build, share and manage information on the diversity of life. BMC Bioinformatics 2009 10(Suppl. 14). [PDF](#)

Streamlining taxonomic publication: a working example with Scratchpads and ZooKeys. ZooKeys 2010 (50) 17-28. [PDF](#)

[Scratchpads Sand Box](#)