



An Open Biodiversity Knowledge Management System

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$\frac{3}{4}$ Report
Viktor Senderov

What is OpenBiodiv?

Code-base

Ontology

rdf4jr R
package

ropenbio R
package

Graph Database

Linked Open
Data set

Lucene Search
Indices

SPARQL Editor

Website

Semantic Search

documentation

App

App

App

Objectives Accomplished So Far

- Occurrence Data Workflow for BDJ
- EML Workflow for BDJ
- New BDJ Article Types (e.g. IUCN Conservation Profile)
- Collaboration with Martin et al.
- OpenBiodiv-O
- Vocabularies
 - Taxonomic Status
 - Region Connection Calculus
- Website Beta





The Open Biodiversity Knowledge Management System

Lyubomir Penev



Person info

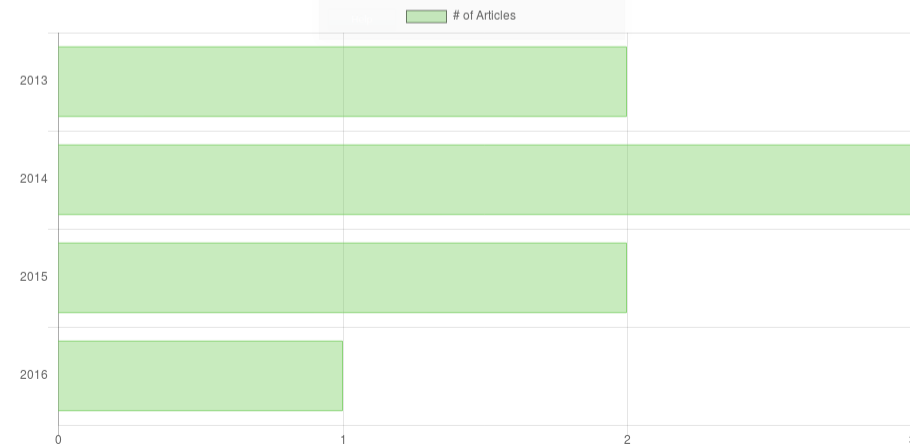
Address bar: <http://openbiodiv.net/dfca8ded-3244-4112-a2eb-ab027834721c>

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Articles





Beta
The Open Biodiversity Knowledge Management System

eupolybothrus



Alternative interpretation

Eupolybothrus tridentinus
Eupolybothrus nudicornis
Eupolybothrus grossipes
Eupolybothrus sissii
Eupolybothrus cavernicolus
Eupolybothrus caesar
Eupolybothrus spiniger
Eupolybothrus stygis
Eupolybothrus leostygis
Eupolybothrus litoralis
Eupolybothrus tabularum
Eupolybothrus kahfi
Eupolybothrus obrovensis
Eupolybothrus zeus
Eupolybothrus fasciatus
Eupolybothrus acherontis
Eupolybothrus a. acherontis
Eupolybothrus gloriastygis
Eupolybothrus transsylvanicus
Eupolybothrus excellens

Journal Articles Published So Far

Publication date	Title	First Author	# A	Cit.	!Self
14.10.2015	Virtual pathway explorer (viPEr) and pathway enrichment analysis tool (PEANuT): creating and analyzing focus networks to identify cross-talk between molecules and pathways		0	6	
01.11.2015	The Open Biodiversity Knowledge Management System in Scholarly Publishing		1	2	7
07.06.2016	EMODnet Workshop on mechanisms and guidelines to mobilise historical data into biogeographic databases		0	21	1
01.09.2016	Species Conservation Profiles compliant with the IUCN Red List of Threatened Species		0	5	6
23.09.2016	Online direct import of specimen records into manuscripts and automatic creation of data papers from biological databases		1	3	2
28.02.2017	Strategies and guidelines for scholarly publishing of biodiversity data		0	13	1
05.04.2017	ARPHA-BioDiv: A toolbox for scholarly publication and dissemination of biodiversity data based on the ARPHA Publishing Platform		0	9	0
06.21.2017	A review of the Cercyon Leach (Coleoptera, Hydrophilidae, Sphaeridiinae) of the Greater Antilles		0	5	0

Talks at International Events and Posters Since Last Report

Dec. 2016	Streamlining the Flow of Taxon Occurrence Data Between a Manuscript and Biological Databases	TDWG 2016	yes
	Nanopublications for biodiversity: concept, formats and implementation	TDWG 2016	no
	The Open Biodiversity Knowledge Management System: A Semantic Suite Running on top of the Biodiversity Knowledge Graph	TDWG 2016	yes
	Next Generation Publishing for Biodiversity using Pensoft's Arpha Writing Tool and Publishing System	TDWG 2016	no
	Demonstrating the Prototype of the Open Biodiversity Knowledge Management System	TDWG 2016	yes
	Creation of Data Paper Manuscripts from Ecological Metadata Language (EML)	TDWG 2016	yes
	Novel article formats in the ARPHA* Writing Tool and Biodiversity Data Journal	TDWG 2016	no
2017-08	OpenBiodiv	BioSyst.EU	yes
2017-10	OpenBiodiv Computer Demo: an Implementation of a Semantic System Running on top of the Biodiversity Knowledge Graph	TDWG 2017	yes
	OpenBiodiv Poster: an Implementation of a Semantic System Running on top of the Biodiversity Knowledge Graph	TDWG 2017	yes
	OpenBiodiv: an Implementaion of a Semantic System Running on top of the Biodiversity Knowledge Graph	TDWG 2017	yes

Symposia and workshops attended

14/09/2015	18/09/2015	BIG Kick Off	Copenhagen	Danemark
01/06/2015	04/06/2015	EU BON	Cambridge	UK
08/06/2015	09/06/2015	EMODNET	Crete	Greece
09/07/2016	19/07/2015	BEXIS	Jena	Germany
	2016-03	EU-BON	Sofia	Bulgaria
26/03/2016	27/03/2016	PlaziF Workshop	Sofia	Bulgaria
	2017-05	PlutoF Workshop	Sofia	Bulgaria
05/06/2016	11/05/2016	BIG4 Field Workshop	Havraniky	Czechia
	2016-10	BIG4 Bioinformatics	Tovetorp	Sweden
	2016-12	TDWG 2016		Costa Rica
	2017-Spring	BIG4 Morphology	Vienna	Austria
	2017-05	ESWC 2017	Portoroj	Slovenia
	2017-08	BioSyst.EU	Gothenburg	Sweden
	2017-10	TDWG 2017	Ottawa	Canada

Secondments and Short Visits

- Short visit to ASU in December 2016
- Secondment at Ronquist Lab : 15 Sep. - 20. Dec.
- Planned secondment or short visit: ERA7

“Extracurricular Activities” in 2017

1. 10-Week R Course R U Bio at Museum of Natural History, Bulgaria
2. R U Bio Bioinformatics course (4 hours) at Software University Bulgaria
3. Datathon Winner - #Dathaton17

Outlook

- Major Publication One by Nov. 3!
 - “OpenBiodiv-O: The Ontology of the OpenBiodiv Knowledge System”
- More pubs:
 1. Populating the ontology/ publishing the R library
 2. Applications of text-mining on the Pensoft/Plazi corpus
- Short Visit to ERA7
- Defense

Thank you

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Courses Attended

Bulgarian Academy of Sciences Educational Program

- Language Course
- Computer Course
- Introduction to Taxonomy
- BIG4 Courses