

Linking data and publications: the Dryad perspective

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- Ojeda-Pérez ZZ, Jiménez Bremont JF, Delgado Sánchez P (2017) Data from: Continuous high and low temperature induced a decrease of photosynthetic activity and changes in the diurnal fluctuations of organic acids in *Opuntia streptacantha*. *PLOS ONE* <https://doi.org/10.5061/dryad.gb645>
- Harrower WL (2017) Data from: Temperate grassland songbird species accumulate incrementally along a gradient of primary productivity. *PLOS ONE* <https://doi.org/10.5061/dryad.365dr>
- Wedekind C, Seebeck T, Bettens F, Paepke AJ (1995) Data from: MHC-dependent mate *ings of the Royal Society B: Biological Sciences*

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OKI wins funds from @ODIHQ to create #OpenData publication toolkit: bit.ly/2zlDbAV #frictionlessdata #dataquality @JoBarratt

Data quality is the greatest barrier to useful and usable open data: our focus is to develop ways for non-technical users to employ tools for automation, reducing the potential for manual error, and increasing productivity



<http://datadryad.org>

THOR Final Event - 15 Nov 2017

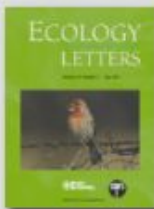


Data from: Towards a worldwide wood economics spectrum


Zanne AE, Lopez-Gonzalez G, Coomes DA, Ilic J, Jansen S, Lewis SL, Miller RB, Swenson NG, Wiemann MC, Chave J

Date Published: February 4, 2009

DOI: <https://doi.org/10.5061/dryad.234>



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Chave J, Coomes DA, Jansen S, Lewis SL, Swenson NG, Zanne AE (2009) Towards a worldwide wood economics spectrum. Ecology Letters 12(4): 351-366. <https://doi.org/10.1111/j.1461-0248.2009.01285.x>

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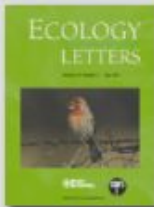


Data from: Towards a worldwide wood economics spectrum


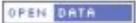
Zanne AE, Lopez-Gonzalez G, Coomes DA, Ilic J, Jansen S, Lewis SL, Miller RB, Swenson NG, Wiemann MC, Chave J

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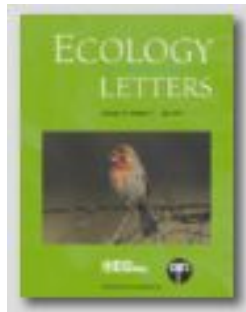
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Types of data-publication links

Original publication



Data in Dryad

Data from: Towards a worldwide wood economics spectrum

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Date Published: February 4, 2009

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Additionally, please cite the Dryad data package:

Reuse publication

Ecological Monographs, 82(2), 2012, pp. 221–228
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Novel forests maintain ecosystem processes after the decline of native tree species

JOSEPH MASCARO,^{1,4} R. FLINT HUGHES,² AND STEFAN A. SCHNITZER^{1,3}

¹Department of Biological Sciences, University of Wisconsin, Milwaukee, Wisconsin 53211 USA
²Institute for Pacific Islands Forestry, USDA Forest Service, Hilo, Hawaii 96720 USA
³Smithsonian Tropical Research Institute, Apartado 2072, Balboa, Republic of Panama

Abstract. The positive relationship between species diversity (richness and evenness) and critical ecosystem functions, such as productivity, carbon storage, and nutrient cycling, is often used to predict the consequences of extinction. At regional scales, however, plant species richness is mostly increasing rather than decreasing because successful plant species introductions far outnumber extinctions. If these regional increases in richness lead to local

nitrogen mineralization rates 96:186–192
of Green Mountain: sen, and ecological
W. Polley, 2011. niche differences in and Systematics
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ic map of the Island er, Colorado, USA, watershed: Early 1963). *Annals of the* 19:624–635.
Coomes, J. Illic, S. G. Swenson, M. C.

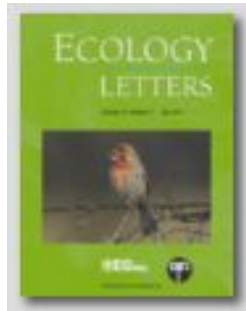
Press/Bishop Museum Press, Honolulu, Hawaii, USA.
Walker, L. K., and R. del Moral. 2003. Primary succession and ecosystem rehabilitation. Cambridge University Press, Cambridge, UK.
Wardle, D. A. 2002. Communities and ecosystems: linking the aboveground and belowground components. Princeton University Press, Princeton, New Jersey, USA.
Wardle, D. A., R. D. Bardgett, R. M. Callaway, and W. H. Van der Putten. 2011. Terrestrial ecosystem responses to species gains and losses. *Science* 332:1275–1277.

Wiemann, and J. Chave. 2009. Global wood density database. Dryad Digital Repository, North Carolina, USA. <http://dx.doi.org/10.5061/dryad.234>
Ziegler, A. C. 2002. Hawaiian natural history and evolution. University of Hawai'i Press, Honolulu, Hawaii, USA.
Zimmerman, N., R. F. Hughes, S. Cordell, P. Hart, H. K. Chang, D. Perez, R. K. Luke, and R. Ostertag. 2005. Patterns of primary succession of native and introduced plants in lowland wet forests in Eastern Hawai'i. *Biotropica* 40:277–284.



Types of data-publication links

Original publication



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Data in Dryad

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Ecological Monographs, 82(2), 2012, pp. 221–228
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JOSEPH MASCARO,^{1,4} R. FLINT HUGHES,² AND STEFAN A. SCHNITZER^{1,3}

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²Institute for Pacific Islands Forestry, USDA Forest Service, Hilo, Hawaii 96720 USA
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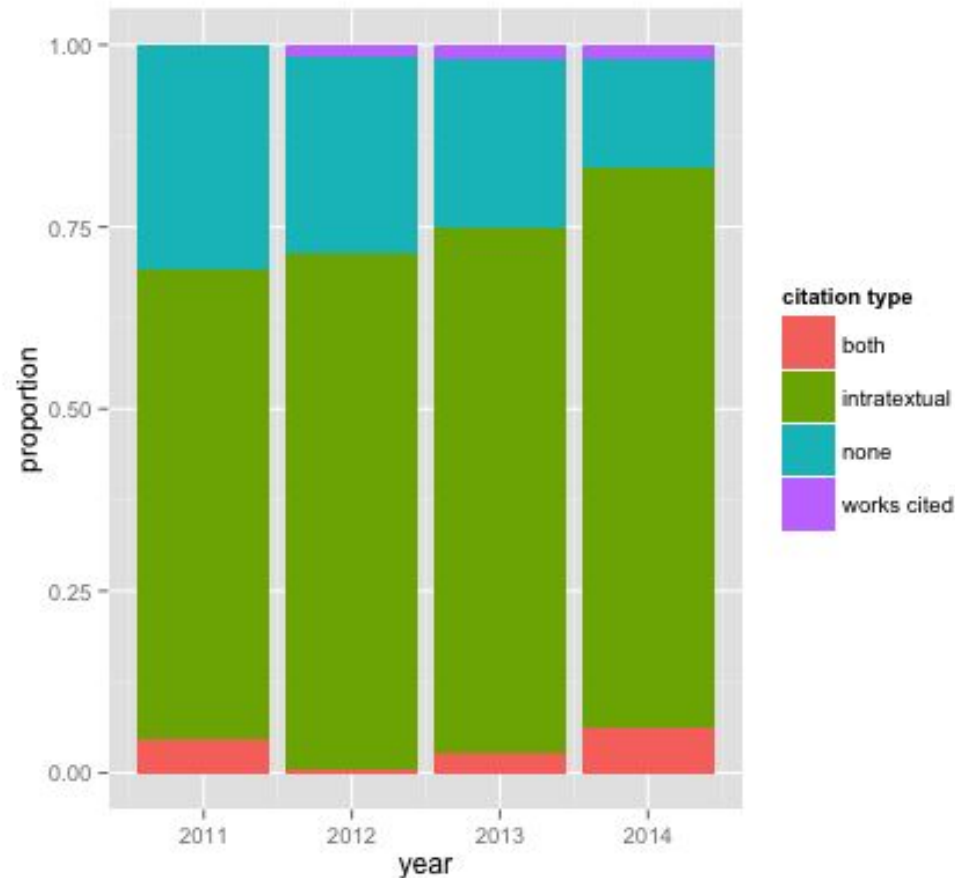
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Cites and references from *original* articles to data: highly variable



Mayo, Vision and Hull (2016) International Journal of Digital Curation
[doi:10.2218/ijdc.v11i1.400](https://doi.org/10.2218/ijdc.v11i1.400)



Solutions



Linking from original publication to data: can be achieved with only the DataCite DOI

The screenshot shows the ScienceDirect interface for the article "Molecular systematics of armadillos (Xenarthra, Dasypodidae): contribution of maximum likelihood and Bayesian analyses of mitochondrial and nuclear genes". The article is by Frédéric Delsuc, Michael J Stanhope, and Emmanuel J.P Douzery. The DOI is [http://dx.doi.org/10.1016/S1055-7903\(03\)00111-8](http://dx.doi.org/10.1016/S1055-7903(03)00111-8). The article is available for purchase for \$39.95. The "Data for this Article" section is highlighted with a yellow box and indicates that data is available in DRYAD.

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Abstract

Keywords

1. Introduction

2. Materials and methods

2.1. Taxon sampling and data acquisition

Table 1

2.2. Sequence alignment

2.3. Phylogenetic analyses

2.3.1. Maximum likelihood

2.3.2. Bayesian approach

2.4. Statistical tests of alternative hypotheses

3. Results and discussion

3.1. Evolutionary properties of the five genes

3.2. Phylogenetic results

3.2.1. Results from

Molecular Phylogenetics and Evolution

Volume 28, Issue 2, August 2003, Pages 261–275

Molecular systematics of armadillos (Xenarthra, Dasypodidae): contribution of maximum likelihood and Bayesian analyses of mitochondrial and nuclear genes

Frédéric Delsuc^a, Michael J Stanhope^b, Emmanuel J.P Douzery^a

^a Laboratoire de Paléontologie, Paléobiologie et Phylogénie, Institut des Sciences de l'Evolution, Université Montpellier II, Montpellier, France

^b Queen's University of Belfast, Biology and Biochemistry, 97 Lisburn Road, Belfast BT9 7BL, UK

[http://dx.doi.org/10.1016/S1055-7903\(03\)00111-8](http://dx.doi.org/10.1016/S1055-7903(03)00111-8), How to Cite or Link Using DOI

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Dancing together and separate again: gymnosperms exhibit frequent changes of fundamental 5S and 35S rRNA gene (rDNA) organisation. (PMID:23512008)

Abstract

Citations

BioEntities

Related Articles

External Links

Garcia S, Kovařík A
Laboratori de Botànica, Facultat de Farmàcia, Universitat de Barcelona, Barcelona, Catalonia, Spain.
Heredity [2013, 111(1):23-33]

Type: Journal Article, Research Support, Non-U.S. Gov't
DOI: 10.1038/hdy.2013.11

Abstract

In higher eukaryotes, the (S-type arrangement) or L-type arrangement of 18S-5.8S-26S genes (L-type sequencing approaches) in several groups, including Conifer species (21 genera). The Coniferales and in Ginkgo organisation. The linked 5S and 35S genes are embedded in the 26S-18S rDNA. The same (Ginkgo, Ephedra) organisation. In addition, pseudogenised 5S genes have been largely homologous. Comparison of 5S coding regions in three times in the course of evolution. Basic units indicate relative positions of genes in plants.

Dancing together and separate again: gymnosperms exhibit frequent changes of fundamental 5S and 35S rRNA gene (rDNA) organisation. (PMID:23512008)

Abstract

Citations

BioEntities

Related Articles

External Links

Dryad Digital Repository

Dryad is a nonprofit organization and an international repository of data underlying scientific and medical publications.

- Data from: Dancing together and separate again: gymnosperms exhibit frequent changes of fundamental 5S and 35S rRNA genes (rDNA) organisation
<http://dx.doi.org/doi:10.5061/dryad.fq228>

Cites from any publication to data via text mining



Combining links through DataCite

Data from: Social networks predict gut microbiome composition in wild baboons

Jenny Tung, Luis B. Barriero, Michael B. Burns, J. C. Grenier, Josh Lynch, L. E. Grieneisen ... & E. A. Archie

Dataset published 2016 via Dryad Digital Repository

Europe PMC (Fulltext) 1

<http://doi.org/10.5061/DRYAD.8GP03>  Cite  Add to ORCID record

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Relations 13

Social networks predict gut microbiome composition in wild baboons

Work published March 16, 2015

References <http://doi.org/10.5061/DRYAD.8GP03>

DataCite (Crossref)

<http://doi.org/10.7554/ELIFE.05224>  Cite

Sources

<input type="checkbox"/> DataCite (RelatedIdentifier)	11
<input type="checkbox"/> Europe PMC (Fulltext)	1
<input type="checkbox"/> DataCite (Crossref)	1

Mica_1yrproximity

Work published 2016

Is part of <http://doi.org/10.5061/DRYAD.8GP03>

DataCite (RelatedIdentifier)

<http://doi.org/10.5061/DRYAD.8GP03.2/10.2>  Cite  Add to ORCID record

Relation Types

<input type="checkbox"/> Is part of	11
<input type="checkbox"/> Cites	1
<input type="checkbox"/> References	1



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Todd J Vision

0000-0002-6133-2581

Country: US

Keywords: plant biology, genome evolution, bioinformatics, scholarly communication

Websites:

Research group website

Other IDs:

Scopus Author ID: 6603368605

Genome-scale phylogenetics: Inferring the plant tree of life from 18,896 gene trees: Systematic Biology 2011

DOI: [10.1093/sysbio/syq072](https://doi.org/10.1093/sysbio/syq072) 

<http://www.scopus.com/inward/record.url?eid=2-s2.0-79951569533&partnerID=MN8TOARS>

Burleigh, J.G. and Bansal, M.S. and Eulenstein, O. and Hartmann, S. and Wehe, A. and Vision, T.J., (2011). "Genome-scale phylogenetics: Inferring the plant tree of life from 18,896 gene trees", Systematic Biology, vol. 60, no. 2, pp. 117-125

Data from: Genome-scale phylogenetics: inferring the plant tree of life from 18,896 gene trees 2010

DOI: [10.5061/DRYAD.7881](https://doi.org/10.5061/DRYAD.7881) 

Burleigh, J. Gordon; Bansal, Mukul S.; Eulenstein, Oliver; Hartmann, Stefanie; Wehe, André; Vision, Todd J.; , (2010). "Data from: Genome-scale phylogenetics: inferring the plant tree of life from 18,896 gene trees"



SCHOLIX

The problem:

1. Many disconnected sources (publishers, data centers, repositories, infrastructure)
2. Heterogeneity of practices, for example:
 - Different PID systems (DOI, accession numbers)
 - Different ways of referencing data (formal citations, in-text references)
 - Different moments of citing data (at publication, post publication)

The fix:

A standard set of guidelines for exposing and consuming links, supported by hubs -- <http://www.scholix.org/guidelines>



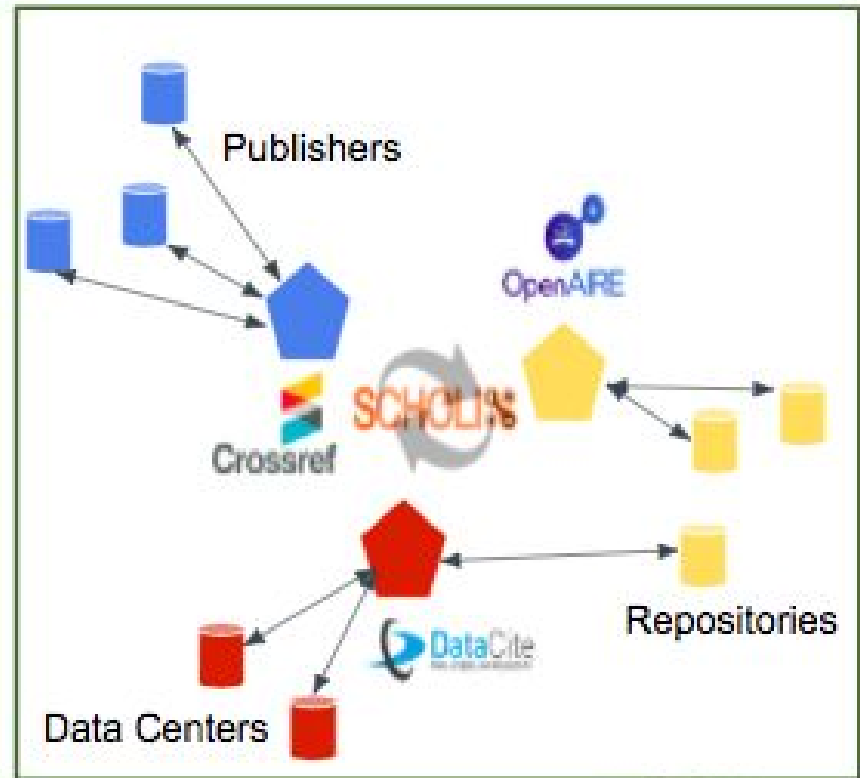
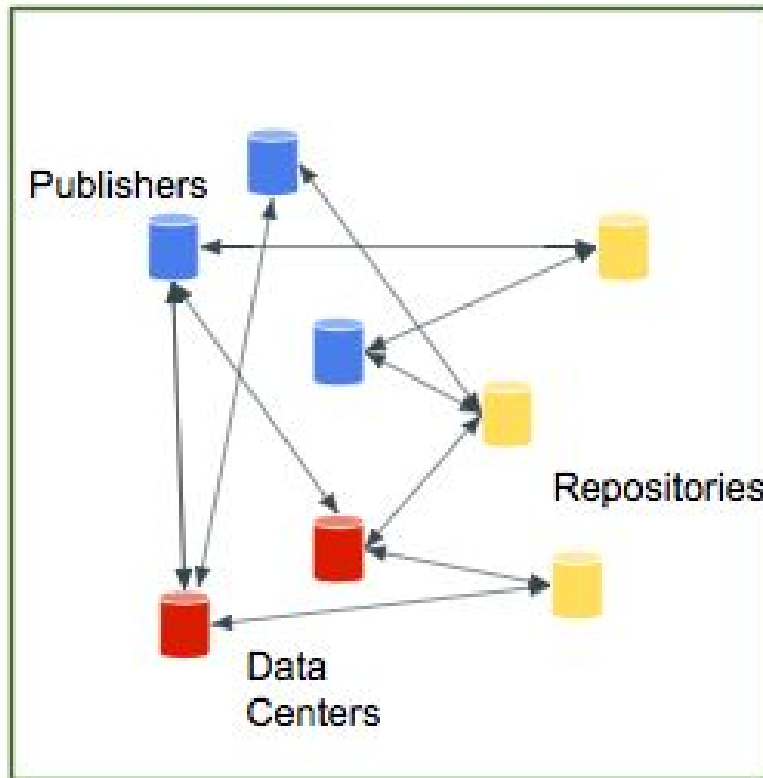
THOR Final Event - 15 Nov 2017



SCHOLIX

Past: disconnected sources using heterogeneity of practices

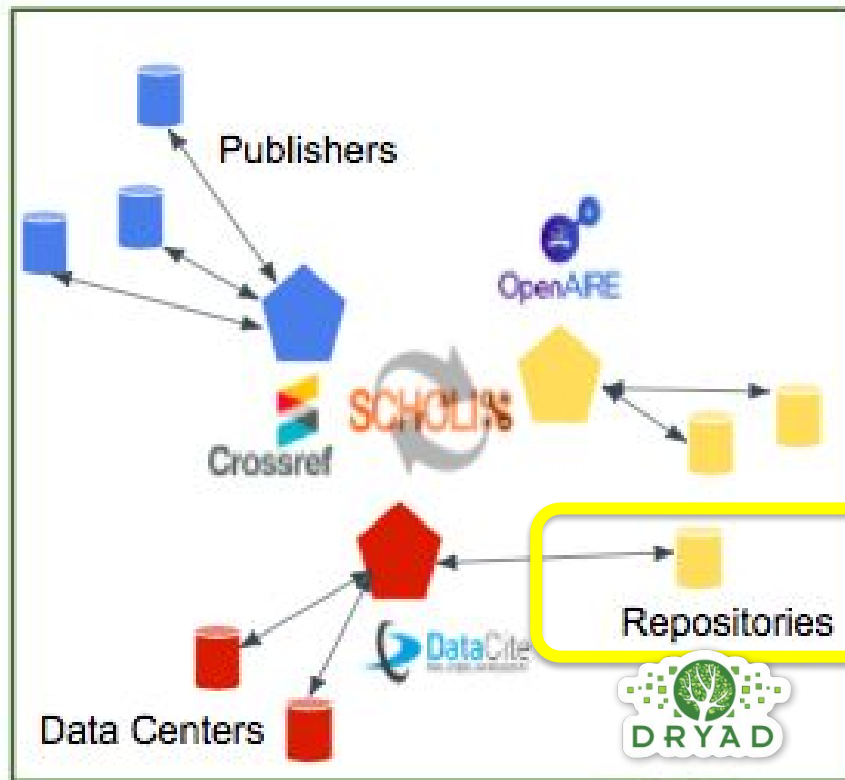
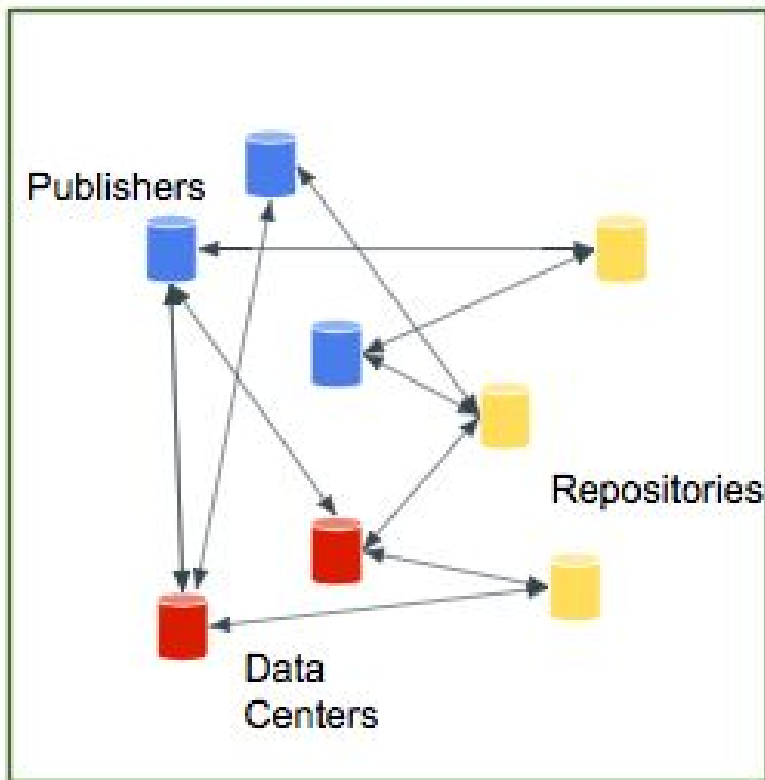
Future: standard set of guidelines for exposing and consuming links, supported by hubs



SCHOLIX

Past: disconnected sources using heterogeneity of practices

Future: standard set of guidelines for exposing and consuming links, supported by hubs



Linking from original publication to data: using custom widget

The screenshot shows the ScienceDirect website interface. At the top, there are navigation links for 'Home', 'Publications', 'Search', 'My settings', 'My alerts', and 'Shopping cart'. A search bar is located on the right side. The main content area displays the article title 'Molecular Phylogenetics and Evolution' and the specific article title 'Molecular systematics of armadillos (Xenarthra, Dasypodidae): contribution of maximum likelihood and Bayesian analyses of mitochondrial and nuclear genes'. A custom widget, highlighted with a yellow border, is titled 'Data for this Article' and contains the text 'Data for this article is available at the following data repositories:' followed by a 'Data in DRYAD' button. The widget is positioned on the right side of the article page, overlapping the 'Bibliographic information' and 'Citing and related articles' sections. The left sidebar contains a table of contents with sections like 'Abstract', 'Keywords', '1. Introduction', '2. Materials and methods', and '3. Results and discussion'. The bottom of the page features a 'View full text' button and a 'Purchase \$39.95' button.



Linking from original publication to data: using Scholix

The screenshot shows the ScienceDirect interface. At the top, there are navigation links for 'Home', 'Publications', 'Search', 'My settings', 'My alerts', and 'Shopping cart'. A search bar is located on the right. A green box at the top right indicates 'You have Guest access to ScienceDirect'. The main content area is titled 'Research data for this article' and features the Dryad logo and the text 'Dryad Digital Repository Scientific and medical research data'. Below this, it states 'Data associated with the article:' followed by a link to 'Data from: Comparative transcriptomics and gene expression in larval tiger salamander (Ambystoma tigrinum) gill and lung tissues as revealed by pyrosequencing'. A 'View full text' button and a 'Purchase \$39.95' button are also visible. The left sidebar contains a table of contents with sections like 'Abstract', 'Keywords', '1. Introduction', '2. Materials and methods', and '3. Results and discussion'. A small figure is visible at the bottom of the sidebar.



Thank you!



<http://datadryad.org>