

Resource Summary Report

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Phenoscape Knowledgebase

RRID:SCR_002821

Type: Tool

Proper Citation

Phenoscape Knowledgebase (RRID:SCR_002821)

Resource Information

URL: <http://kb.phenoscape.org/>

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Description: Knowledgebase that uses ontologies to integrate phenotypic data from genetic studies of zebrafish with evolutionary variable phenotypes from the systematic literature of ostariophysan fishes. Users can explore the data by searching for anatomical terms, taxa, or gene names. The expert system enables the broad scale analysis of phenotypic variation across taxa and the co-analysis of these evolutionarily variable features with the phenotypic mutants of model organisms. The Knowledgebase currently contains 565,158 phenotype statements about 2,527 taxa, sourced from 57 publications, as well as 38,189 phenotype statements about 4,727 genes, retrieved from ZFIN. 2013-01-26.

Abbreviations: Phenoscape Knowledgebase

Resource Type: data or information resource, database

Defining Citation: [PMID:22736877](#), [PMID:20505755](#)

Keywords: fish, gene, anatomy, model organism, ostariophysan, phenotype, taxis, ontology, anatomy, variation, taxon, genetic, evolution, development, web service, source code

Funding: NSF DBI-1062404;
NSF DBI-1062542;
NSF EF-0905606;
NSF BDI-0641025;
NSF EF-0423641

Availability: Free, Freely available

Resource Name: Phenoscape Knowledgebase

Resource ID: SCR_002821

Alternate IDs: nif-0000-24925

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Record Creation Time: 20220129T080215+0000

Record Last Update: 20260905T133118+0000

Ratings and Alerts

No rating or validation information has been found for Phenoscape Knowledgebase.

No alerts have been found for Phenoscape Knowledgebase.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 14 mentions in open access literature.

Listed below are recent publications. The full list is available at [Kravitz](#) .

Harrison MC, et al. (2024) Exploring Saccharomycotina Yeast Ecology Through an Ecological Ontology Framework. Yeast (Chichester, England), 41(10), 615.

Cui H, et al. (2018) Incentivising use of structured language in biological descriptions: Author-driven phenotype data and ontology production. Biodiversity data journal(6), e29616.

Dahdul W, et al. (2018) Annotation of phenotypes using ontologies: a gold standard for the training and evaluation of natural language processing systems. Database : the journal of biological databases and curation, 2018.

Edmunds RC, et al. (2016) Phenoscape: Identifying Candidate Genes for Evolutionary Phenotypes. Molecular biology and evolution, 33(1), 13.

Dececchi TA, et al. (2016) Data Sources for Trait Databases: Comparing the Phenomic Content of Monographs and Evolutionary Matrices. PloS one, 11(5), e0155680.

Dahdul W, et al. (2015) Moving the mountain: analysis of the effort required to transform comparative anatomy into computable anatomy. Database : the journal of biological databases and curation, 2015, bav040.

Thessen AE, et al. (2015) Emerging semantics to link phenotype and environment. PeerJ, 3, e1470.

Dececchi TA, et al. (2015) Toward Synthesizing Our Knowledge of Morphology: Using Ontologies and Machine Reasoning to Extract Presence/Absence Evolutionary Phenotypes across Studies. *Systematic biology*, 64(6), 936.

Cobb JN, et al. (2013) Next-generation phenotyping: requirements and strategies for enhancing our understanding of genotype-phenotype relationships and its relevance to crop improvement. *TAG. Theoretical and applied genetics. Theoretische und angewandte Genetik*, 126(4), 867.

Mabee BP, et al. (2012) 500,000 fish phenotypes: The new informatics landscape for evolutionary and developmental biology of the vertebrate skeleton. *Zeitschrift fur angewandte Ichthyologie = Journal of applied ichthyology*, 28(3), 300.

Dahdul WM, et al. (2012) A unified anatomy ontology of the vertebrate skeletal system. *PloS one*, 7(12), e51070.

Dahdul WM, et al. (2010) Evolutionary characters, phenotypes and ontologies: curating data from the systematic biology literature. *PloS one*, 5(5), e10708.

Balhoff JP, et al. (2010) Phenex: ontological annotation of phenotypic diversity. *PloS one*, 5(5), e10500.

Dahdul WM, et al. (2010) The teleost anatomy ontology: anatomical representation for the genomics age. *Systematic biology*, 59(4), 369.