

Science Communication & Impact

Steven B. Roberts

School of Aquatic and Fishery Sciences
University of Washington

robertslab.info
@sr320



Altmetric

Science Communication & Impact

What ~~faculty~~ I think about

Steven B. Roberts

School of Aquatic and Fishery Sciences
University of Washington

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@sr320



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Bio

- ★ 2014 Associate Professor - University of Washington
- 2007 Assistant Professor
- 2003 Research Scientist - Marine Biological Laboratory
- 2002 Post-doc
- 1998 PhD Student - University of Notre Dame

★ Tenure

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February 17, 2015

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June 3, 2013

Rise of 'Altmetrics' Revives Questions About How to Measure Impact of Research



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University World News
June 10, 2013 ·

Steven B. Roberts's 103-page tenure package features the usual long-as-your-arm list of peer-reviewed publications. But Roberts, an assistant professor at the University of Washington who studies the effects of environmental change on shellfish, chose to add something less typical to his dossier — evidence of his research's impact online, reports Jennifer Howard, in The Chronicle of Higher Education.



Rise of 'altmetrics' and measuring impact of research - University World News

UNIVERSITYWORLDNEWS.COM

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Tenure Package [SB Roberts]

Posted in Outreach, Publication

★ Tenure

If anyone is interested in what a tenure package looks like (I know I could have benefited from a few more examples) I am making mine [available here](#).

Below is one of the tables I included, an attempt to quantify online science outreach.

PROMOTION PACKAGE For promotion from the rank of Assistant to Associate Professor

Steven Beyer Roberts

Assistant Professor
School of Aquatic and Fishery Sciences
University of Washington

<http://faculty.washington.edu/sr320>

Platform	Purpose	URL	Metrics
Website	Primary Lab Website	faculty.washington.edu/sr320	2 months - 216 unique visitors
Wiki	Share online lab notebooks and protocols, lab communication	genefish.wikispaces.com	2012 - 20k views
Blog	Lab Tumblr	genefish.tumblr.com	12 months - 6137 visits
Facebook	Shares Lab Tumblr posts	goo.gl/pOitK	47 likes; 11k Friends of Fans
Blog	Blog specifically documenting our Ocean Acidification Research	safsoa.wordpress.com	2012 - 1645 views
Twitter	Automatic lab feed - notebook entries, posts, events	twitter.com/genefish	17,330 tweets
Twitter	Personal twitter account	twitter.com/sr320	1491 tweets
Flickr	Sharing research images	goo.gl/yzwE7	2726 photos
Youtube	Primarily host instructional videos	youtube.com/user/srlab	7351 views
Scribd	Share documents, primarily undergrad student papers	scribd.com/sr320	9908 reads
Figshare	Sharing datasets and documents	goo.gl/umGFg	4947 views
Slideshare	Sharing presentations	slideshare.net/sr320	49 slideshares

<http://goo.gl/LRXbvD>

★ Tenure

PROMOTION PACKAGE

For promotion from the rank of Assistant to Associate Professor

Steven Beyer Roberts

Assistant Professor
School of Aquatic and Fishery Sciences
University of Washington

<http://faculty.washington.edu/sr320>

2012

Roberts SB, Hauser L, Seeb LW, Seeb JE (2012) Development of genomic resources for Pacific herring through targeted transcriptome pyrosequencing. PLoS ONE 7(2): e30908. doi:10.1371/journal.pone.0030908 [I F E A W]
Pages: 10
Article Views: 1075
Supplemental Data Views: 3792 (*most viewed on Figshare*)

Roberts SB and Gavery MR (2012) Is there a relationship between DNA methylation and phenotypic plasticity in invertebrates? Frontiers in Physiology. 2:116. doi:0.3389/fphys.2011.00116 [I F E A W]

Pages: 5
Article Views: 651

Gavery MR* and Roberts SB. (2012) Characterizing short read sequencing for gene discovery and RNA-Seq analysis in *Crassostrea gigas*. Comparative Biochemistry and Physiology Part D: Genomics and Proteomics, Available online 29 December 2011. doi: 10.1016/j.cbd.2011.12.003 [I F E A W]

Pages: 6
Statistic: #1 most downloaded article in journal January – March 2012

<http://goo.gl/LRXbvD>



PROMOTION PACKAGE

For promotion from the rank of Assistant to Associate Professor

Steven Beyer Roberts

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2012

Roberts SB, Hauser L, Seeb LW, Seeb JE (2012) Development of genomic resources for Pacific herring through targeted transcriptome pyrosequencing. PLoS ONE 7(2): e30908. doi:10.1371/journal.pone.0030908 [I F E A W]
Pages: 10
Article Views: 1075
Supplemental Data Views: 3792 (*most viewed on Figshare*)

Roberts SB and Gavery MR (2012) Is there a relationship between DNA methylation and phenotypic plasticity in invertebrates? Frontiers in Physiology. 2:116. doi:0.3389/fphys.2011.00116 [I F E A W]

Pages: 5
Article Views: 651

Gavery MR* and Roberts SB. (2012) Characterizing short read sequencing for gene discovery and RNA-Seq analysis in *Crassostrea gigas*. Comparative Biochemistry and Physiology Part D: Genomics and Proteomics, Available online 29 December 2011. doi: 10.1016/j.cbd.2011.12.003 [I F E A W]

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Bio

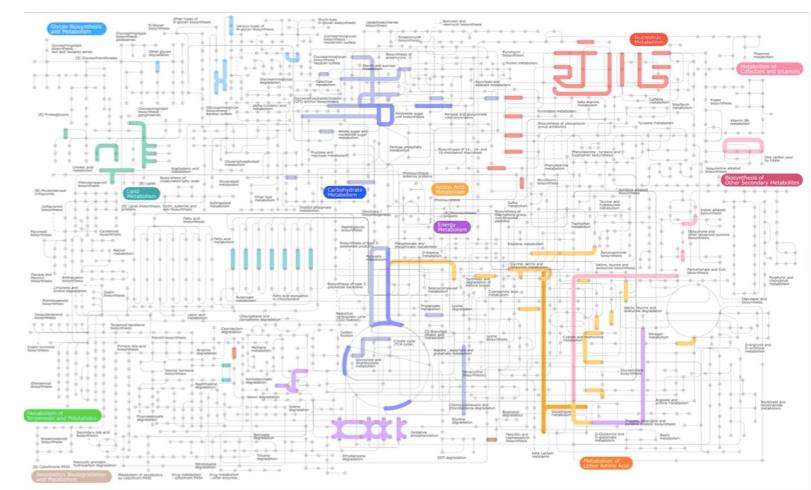
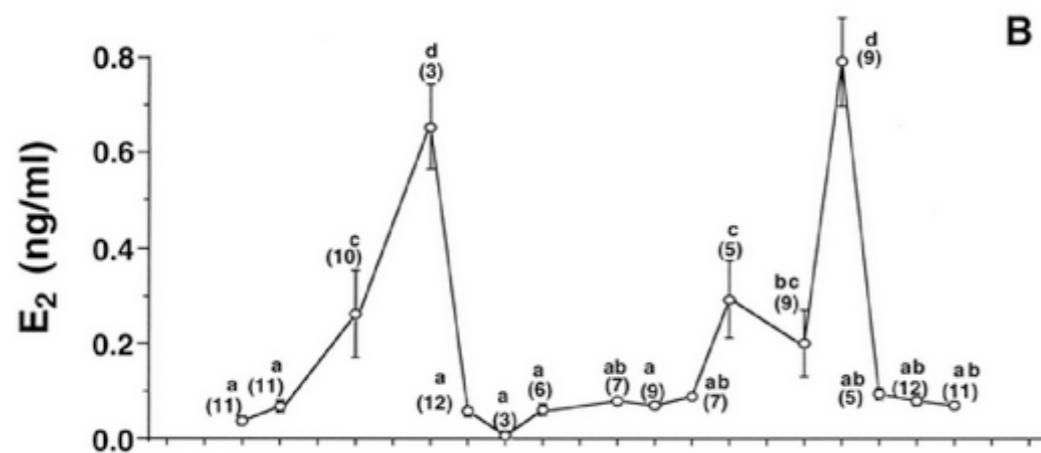
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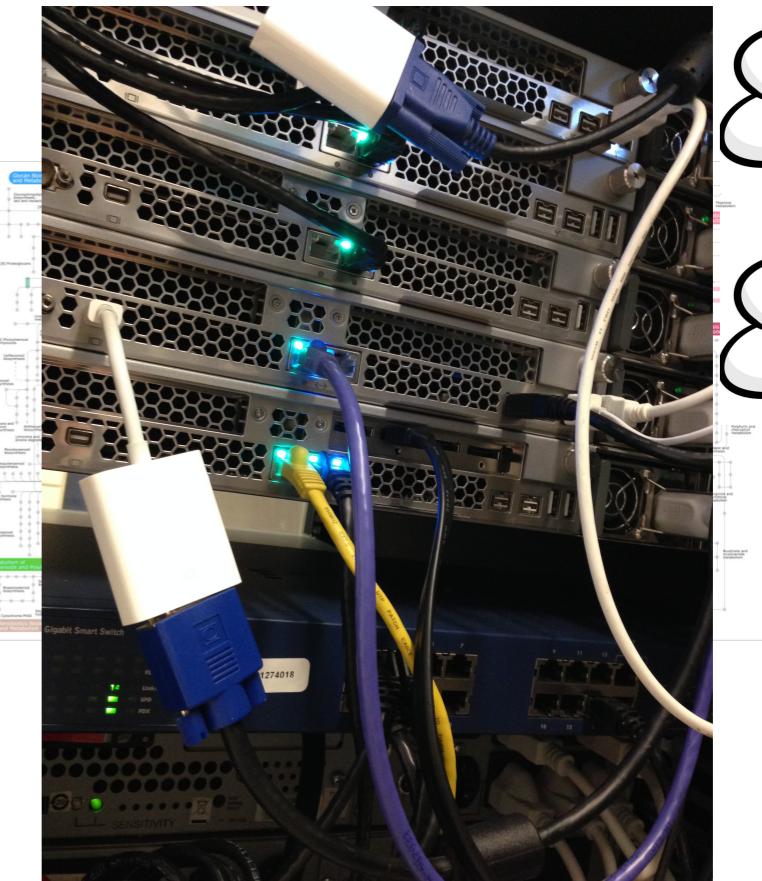
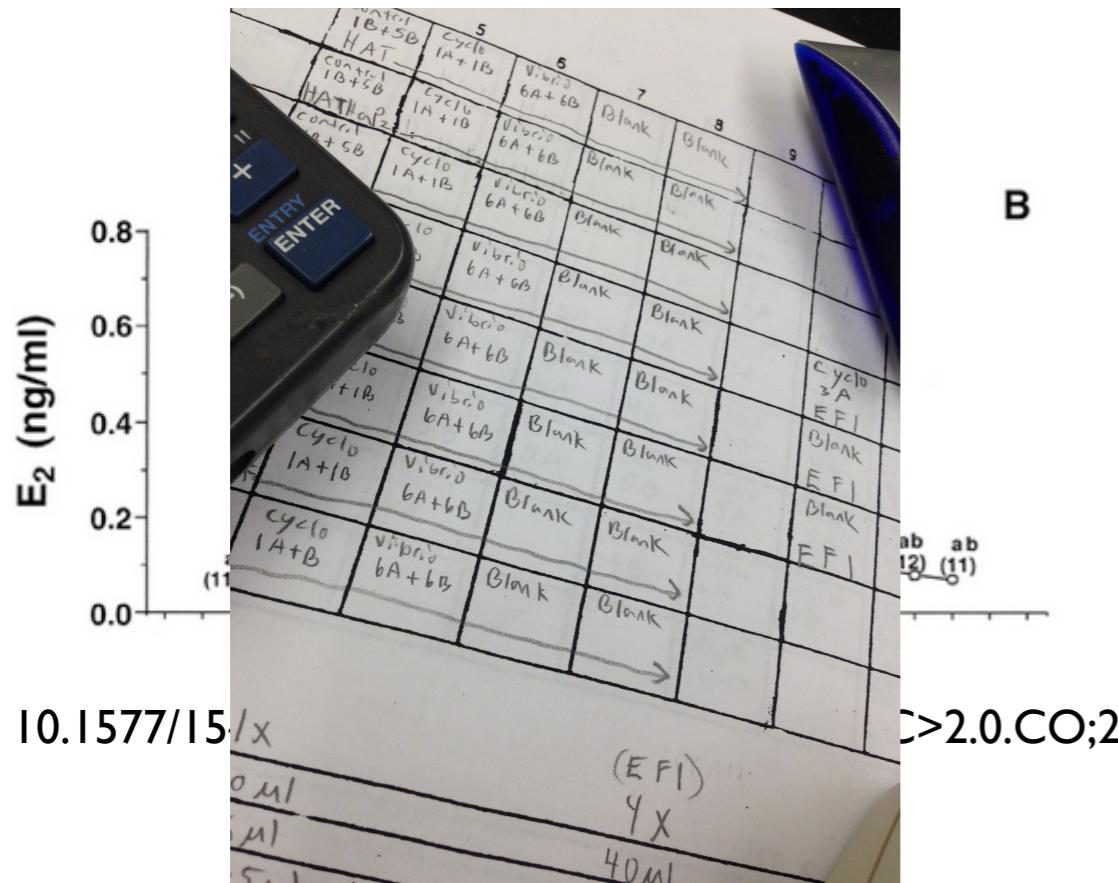
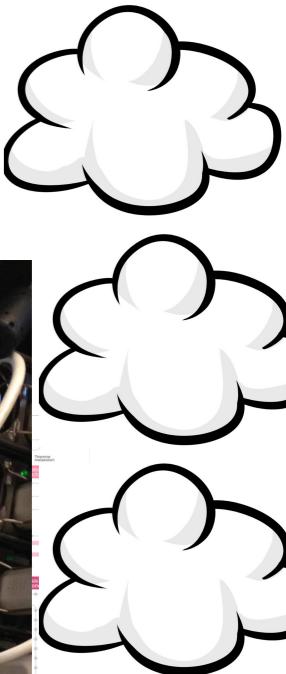
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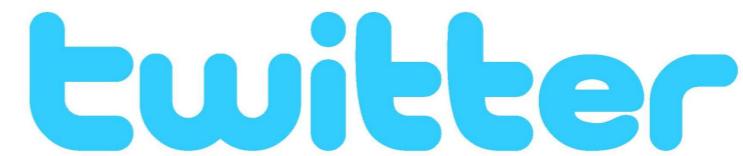
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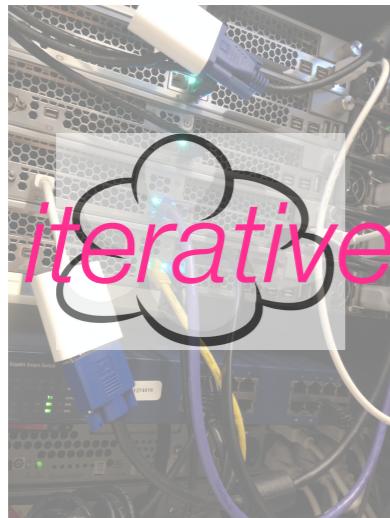
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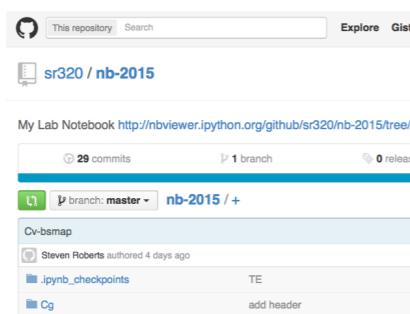
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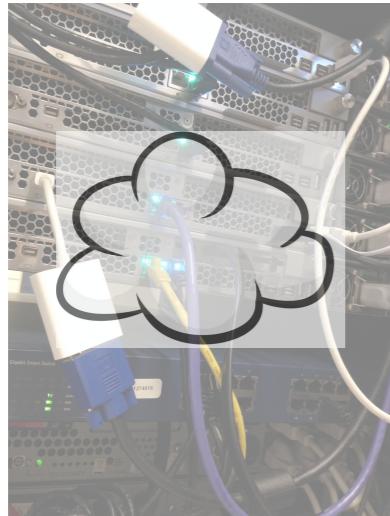
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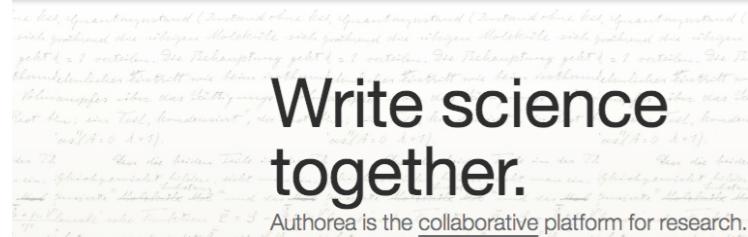
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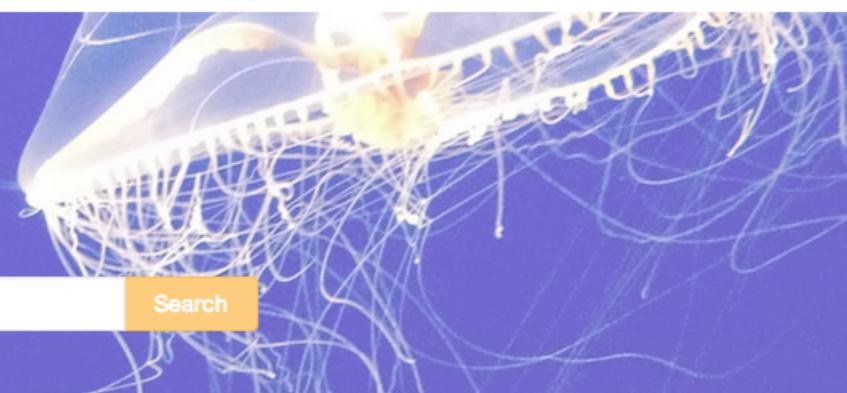
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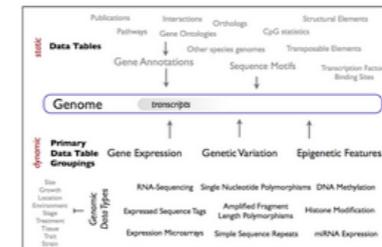
sr320 edited this page on Feb 7 · 23 revisions

This wiki serves as the *primary means for documentation* for project qdod: querying disparate oyster datasets.

In brief, data in the form of delimited text files is aggregated into SQLShare where they can be easily queried. The simplest way to start exploring the uses for this system is to interact with SQLShare using the simple web interface. All you need to get started is a Google account. Please see this page for a beginner's guide to SQLshare.

There is a python client for advanced users.

Below is schematic representation of the different types of datasets.



Reference Genome Sequence files are described on [this page](#).

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Steven Roberts

Associate Professor (Marine Biology)
University of Washington



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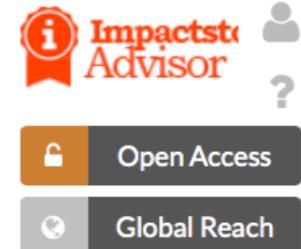
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Steven
Roberts



Associate Professor in the School of Aquatic and Fishery Sciences
at the University of Washington.



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Development of Genomic Resources for Pacific Herring through Targeted Transcriptome Pyrosequencing

(2012) Roberts, Hauser, Seeb et al.. *PLoS ONE*

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Is There a Relationship between DNA Methylation and Phenotypic Plasticity in Invertebrates?

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A context dependent role for DNA methylation in bivalves

(2014) Gavery, Roberts. *Briefings in Functional Genomics*

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Predominant intragenic methylation is associated with gene expression characteristics in a bivalve mollusc

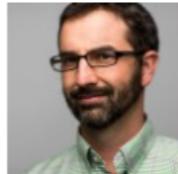
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Steven Roberts



Associate Professor in the School of Aquatic and Fishery Sciences at the University of Washington.



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Selected works

Does DNA methylation facilitate phenotypic plasticity in marine invertebrates?

(2014) Slideshare.

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Crassostrea gigas high-throughput bisulfite sequencing (larvae and sperm tissues)

(2014) figshare.

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11.6k views on

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Austral Summer Institute Course Wrap-up

Last month I had the opportunity to visit the University of Concepción, and teach a course at the Austral Summer Institute - "Physiological response of marine organisms to environmental change from a..."

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Peer-Reviewed Publications

see also [preprints](#)

Timmins-Schiffman E, Coffey WD, Hua W, Nunn BL, Dickinson GH and Roberts SB. (2014). Shotgun proteomics reveals physiological responses to acidification in *Crassostrea gigas*. *BMC Genomics* 2014, 15:951 doi:10.1186/1471-2164-15-951  6

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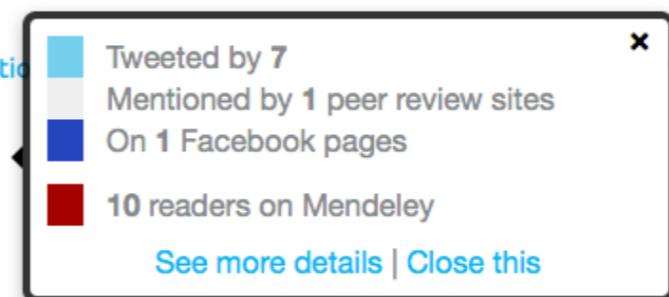
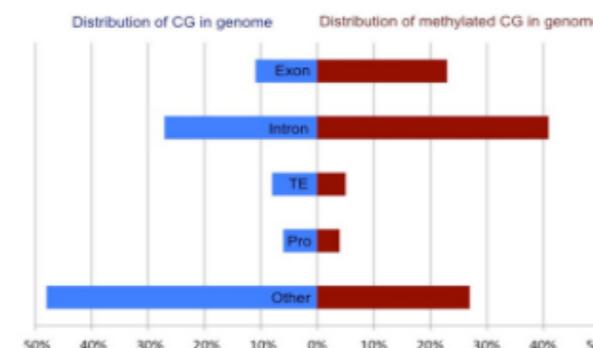
Olson CE and Roberts SB. (2014). Genome-wide profiling of DNA methylation and gene expression in *Crassostrea gigas* male gametes. *Journal of Invertebrate Physiology*. 5:224. doi: 10.3389/fphys.2014.0022  5

Gavery MR and Roberts SB. (2014) A context specific role for DNA methylation in bivalves. *Briefings in Functional Genomics*. doi:10.1093/bfgp/elt054 ([pdf](#))

 3

Gavery MR and Roberts SB. (2013) Predominant intragenic methylation in the genome of a bivalve mollusc. *PeerJ* 1:e215.

doi:10.7717/peerj.215  6



Garcia-Vedrenne AE, Groner M, Page-Karjian A, Siegmund G-F, Singhal S, Sziklay J and Roberts SB. (2013) Development of Genomic Resources for a Thraustochytrid Pathogen and Investigation of Its Virulence Mechanisms. *PLoS ONE* 8(9): e74196. doi:10.1371/journal.pone.0074196

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Storer CS, Quinn TP and Roberts SB. (2013) Physiological changes in brain tissue of senescent sockeye salmon. *Biogerontology*. doi:10.1007/s10522-013-0530-2

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Burge CA, Mouchka ME, Harvell CD and Roberts SB. (2013) Immune response of the Caribbean sea fan, *Gorgonia ventalina*, exposed to an *Aplanochytrium* parasite as revealed by transcriptome sequencing. *Frontiers in Physiology* 4:180. doi:10.3389/fphys.2013.00180  15

Timmins-Schiffman EB, Nunn BL, Goodlett DR and Roberts SB. (2013) Shotgun proteomics as a viable approach for biological discovery in the Pacific oyster.

Conservation Physiology. doi:10.1093/conphys/cot009  3



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 ## Peer-Reviewed Publications

see also *preprints*

Timmins-Schiffman E, Coffey WD, Hua W, Nunn BL, Dickinson GH and Roberts SB. (**2014**). [Shotgun proteomics reveals physiological response to ocean acidification in *Crassostrea gigas*] (<http://www.biomedcentral.com/1471-2164/15/951>) BMC Genomics 2014, 15:951 doi:10.1186/1471-2164-15-951

Olson CE and Roberts SB. (**2014**). [Genome-wide profiling of DNA methylation and gene expression in *Crassostrea gigas* male gametes] (<http://journal.frontiersin.org/Journal/10.3389/fphys.2014.00224/abstract>) Frontiers in Physiology. 5:224. doi: 10.3389/fphys.2014.00224

Gavery MR and Roberts SB. (**2014**). [A context specific role for DNA methylation in bivalves] (<http://bfg.oxfordjournals.org/content/13/3/217>) Briefings in Functional Genomics. doi:10.1093/bfgp/elt054 ([pdf] (<http://eagle.fish.washington.edu/cnidarian/Briefings%20in%20Functional%20Genomics-2014-Gavery-217-22.pdf>))

Gavery MR and Roberts SB. (**2013**). [Predominant intragenic methylation is associated with gene expression characteristics in a bivalve mollusc] (<https://peerj.com/articles/215/>) PeerJ 1:e215. doi:10.7717/peerj.215

Garcia-Vedrenne AE, Groner M, Page-Karjian A, Siegmund G-F, Singhal S, Sziklay J and Roberts SB. (**2013**). [Development of Genomic Resources for a thraustochytrid Pathogen and Investigation of Temperature Influences on Gene Expression] (<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0074196>) PLoS ONE 8(9): e74196. doi:10.1371/journal.pone.0074196

Storer CS, Quinn TP and Roberts SB. (**2013**). [Quantitative PCR analysis used to characterize physiological changes in brain tissue of senescent sockeye salmon] (<http://link.springer.com/article/10.1007/s10522-013-9448-1>) Biogerontology. doi:10.1007/s10522-013-9448-1 ([pdf] (<https://dl.dropboxusercontent.com/u/115356/docs/Storer2013.pdf>))

Burge CA, Mouchka ME, Harvell CD and Roberts SB. (**2013**). [Immune response of the Caribbean sea fan, *Gorgonia ventalina*, exposed to an *Aplanochytrium* parasite as revealed by transcriptome sequencing] (http://www.frontiersin.org/invertebrate_physiology/10.3389/fphys.2013.00180/abstract) Frontiers in Physiology 4:180. doi:10.3389/fphys.2013.00180

Timmins-Schiffman EB, Nunn BL, Goodlett DR and Roberts SB. (**2013**). [Shotgun proteomics as a viable approach for biological discovery in the Pacific oyster] (<http://conphys.oxfordjournals.org/content/1/1/cot009.full.pdf+html>) Conservation Physiology. doi:10.1093/conphys/cot009

Peer-Reviewed Publications

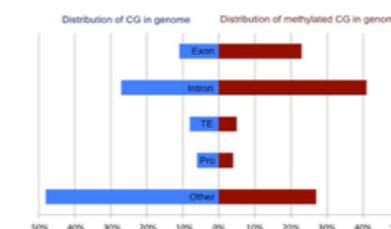
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Timmins-Schiffman E, Coffey WD, Hua W, Nunn BL, Dickinson GH and Roberts SB. (2014). [Shotgun proteomics reveals physiological response to ocean acidification in *Crassostrea gigas*](#) BMC Genomics 2014, 15:951 doi:10.1186/1471-2164-15-951 Altmetric 6

Olson CE and Roberts SB. (2014). [Genome-wide profiling of DNA methylation and gene expression in *Crassostrea gigas* male gametes](#) Frontiers in Physiology. 5:224. doi: 10.3389/fphys.2014.00222 Altmetric 5

Gavery MR and Roberts SB. (2014) [A context specific role for DNA methylation in bivalves](#) Briefings in Functional Genomics. doi:10.1093/bfgp/elt054 ([pdf] Altmetric 3)

Gavery MR and Roberts SB. (2013) [Predominant intragenic methylation is associated with gene expression characteristics in a bivalve mollusc](#) PeerJ 1:e215. doi:10.7717/peerj.215 Altmetric 6



Garcia-Vedrenne AE, Groner M, Page-Karjian A, Siegmund G-F, Singhal S, Sziklay J and Roberts SB. (2013) [Development of Genomic Resources for a thraustochytrid Pathogen and Investigation of Temperature Influences on Gene Expression](#) PLoS ONE 8(9): e74196. doi:10.1371/journal.pone.0074196 Altmetric 2

Storer CS, Quinn TP and Roberts SB. (2013) [Quantitative PCR analysis used to characterize physiological changes in brain tissue of senescent sockeye salmon](#) Biogerontology. doi:10.1007/s10522-013-9448-1 ([pdf])

Burge CA, Mouchka ME, Harvell CD and Roberts SB. (2013) [Immune response of the Caribbean sea fan, *Gorgonia ventalina*, exposed to an *Aplanochytrium* parasite as revealed by transcriptome sequencing](#) Frontiers in Physiology 4:180. doi:10.3389/fphys.2013.00180 Altmetric 15

Timmins-Schiffman EB, Nunn BL, Goodlett DR and Roberts SB. (2013) [Shotgun proteomics as a viable approach for biological discovery in the Pacific oyster](#) Conservation Physiology. doi:10.1093/conphys/cot009 Altmetric 3

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Stein: "#reproducibility is just a synonym for actually right" #uwrepro modular.math.washington.edu



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Steven Roberts @sr320 · May 8

Stark: "key to reproducibility is in the training" #uwrepro



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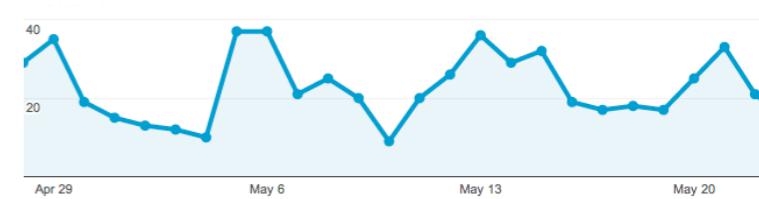
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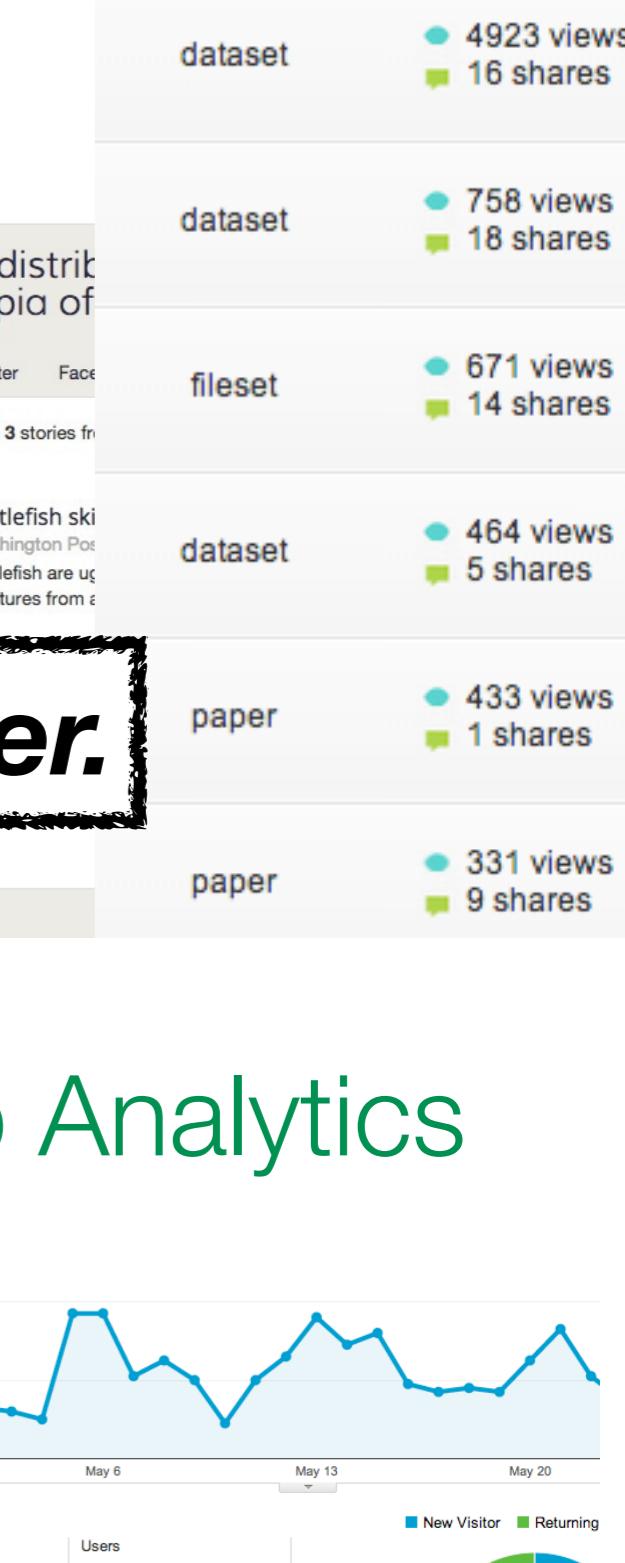
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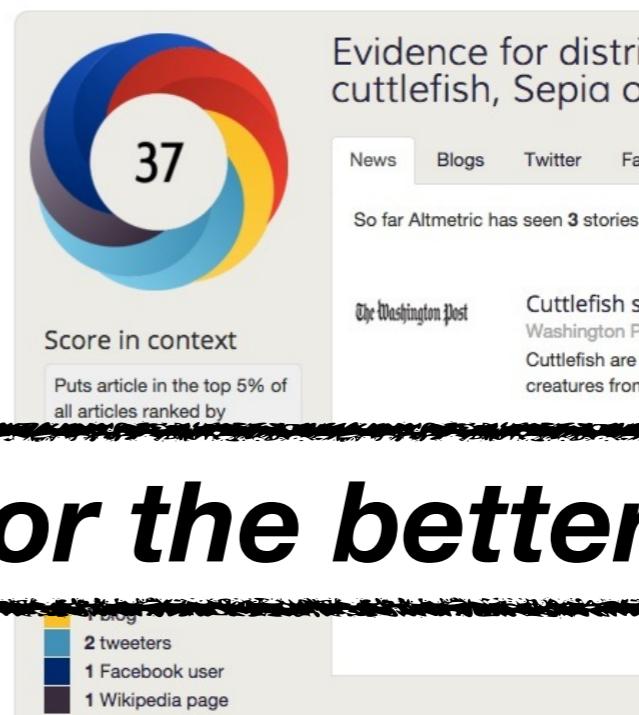
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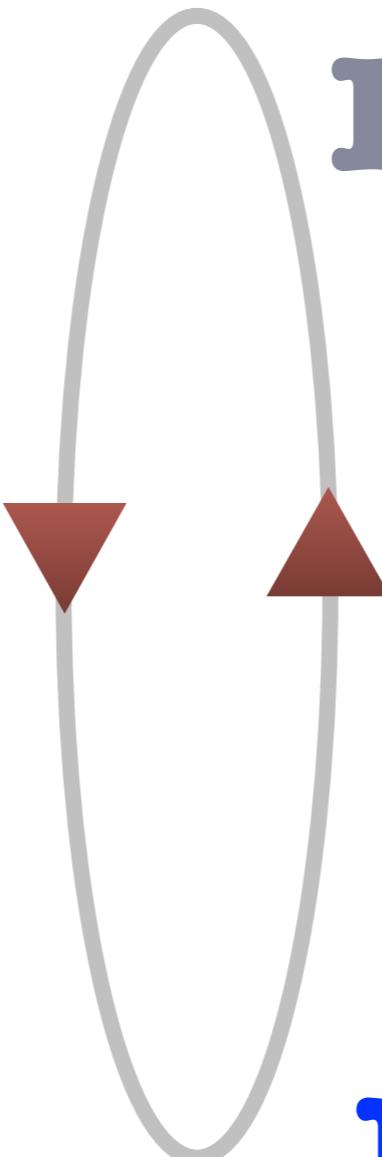
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Getting Information

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Sharing Information

Any metric to inform on efficiency is valuable

thanks!

Steven Roberts

sr320@uw.edu

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