

A



# Zebrafish (Danio rerio) Environmental Summary, Aquatic Resources Program, Boston Children's Hospital 2020 V.6

Christian Lawrence<sup>1</sup>, Jason Best<sup>1</sup>, Althea James<sup>1</sup>, Shane Hurley<sup>1</sup>, Mitchel Shia<sup>1</sup>, Michelle Urh<sup>1</sup>, Brady Hirshfeld<sup>1</sup>, Nina Bakker<sup>1</sup>, Hugo Perdomo<sup>1</sup>, Aaron Krueger<sup>2</sup>

<sup>1</sup>Boston Children's Hospital; <sup>2</sup>Worcester Polytechnic Institute



dx.doi.org/10.17504/protocols.io.bream3ae



#### ABSTRACT

Environmental and housing conditions experienced by laboratory animals exert profound effects on their biology, physiology, and behavior. These parameters are important and often overlooked sources of potential variation in experiments, and should be reported in peer-reviewed publications in order to promote scientific reproducibility. To that end, here we provide a summary of the environmental conditions in zebrafish (Danio rerio) aquaculture facilities at Boston Children's Hospital (BCH). We include data on the physico-chemical, health, and nutrition of zebrafish in three separate facilities at BCH: Karp, Enders SSB, and Enders Lobby. In this year's version, we also include new information on our feeding practices and colony pathogen history. This information will be applicable to any study involving zebrafish conducted in one of these three facilities during the year of 2020.

#### **EXTERNAL LINK**

https://doi.org/10.1371/journal.pone.0199712

THIS PROTOCOL ACCOMPANIES THE FOLLOWING PUBLICATION

Widrick JJ, Gibbs DE, Sanchez B, Gupta VA, Pakula A, Lawrence C, Beggs AH, Kunkel LM (2018) An open source microcontroller based flume for evaluating swimming performance of larval, juvenile, and adult zebrafish. PLoS ONE 13(6): e0199712. doi: 10.1371/journal.pone.0199712

## **ATTACHMENTS**

BCH Danio rerio Environmental Summary Environmental Summary 2017.pdf

BCH Danio rerio 2018.pdf

BCH Danio rerio **Environmental Summary** 2018a.pdf

BCH Danio rerio **Environmental Summary** 2019.pdf

DOI

dx.doi.org/10.17504/protocols.io.bream3ae

**EXTERNAL LINK** 

https://doi.org/10.1371/journal.pone.0199712

## PROTOCOL CITATION

Christian Lawrence, Jason Best, Althea James, Shane Hurley, Mitchel Shia, Michelle Urh, Brady Hirshfeld, Nina Bakker, Hugo Perdomo, Aaron Krueger 2021. Zebrafish (Danio rerio) Environmental Summary, Aquatic Resources Program, Boston Children's Hospital 2020. protocols.io

https://dx.doi.org/10.17504/protocols.io.bream3ae

Version created by Christian Lawrence

MANUSCRIPT CITATION please remember to cite the following publication along with this protocol

Widrick JJ, Gibbs DE, Sanchez B, Gupta VA, Pakula A, Lawrence C, Beggs AH, Kunkel LM (2018) An open source microcontroller based flume for evaluating swimming performance of larval, juvenile, and adult zebrafish. PLoS ONE 13(6): e0199712. doi: 10.1371/journal.pone.0199712

m protocols.io 01/13/2021

Citation: Christian Lawrence, Jason Best, Althea James, Shane Hurley, Mitchel Shia, Michelle Urh, Brady Hirshfeld, Nina Bakker, Hugo Perdomo, Aaron Krueger (01/13/2021). Zebrafish (Danio rerio) Environmental Summary, Aquatic Resources Program, Boston Children's Hospital 2020. https://dx.doi.org/10.17504/protocols.io.bream3ae

EXTERNAL LINK

### https://doi.org/10.1371/journal.pone.0199712

WHAT'S NEW

Updated data for 2020

**KEYWORDS** 

zebrafish, Danio rerio, husbandry, environmental conditions

LICENSE

This is an open access protocol distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

CREATED

Jan 13, 2021

LAST MODIFIED

Jan 13, 2021

PROTOCOL INTEGER ID

46242

ATTACHMENTS

BCH Danio rerio Environmental Summary Environmental Summary Environmental Summary Environmental Summary 2017.pdf

BCH Danio rerio 2018.pdf

BCH Danio rerio 2018a.pdf

BCH Danio rerio 2019.pdf

MATERIALS TEXT

(i) Environmental Summary ALL 2020.pdf