Data management plan

Samples generated. (1) Laboratory reared specimens: At the end of the project, we will have conducted two replicate experiments (Y1, Y2), each producing 1,920 juvenile Chilean silversides (40 individuals × 3 replicates × 4 temperatures × 4 populations), which will be preserved individually with ID at -20°C. Founder adults will also be preserved frozen. In addition, we will have embryo samples (200 per location, 4 locations, 2 years = 1,600), hatchling samples (50 per replicate, 2 years, 48 replicates = 4800), and culled specimens from the 1st and 2nd number standardizations, all preserved in 95% buffered ethanol. These samples will be shipped to the University of Connecticut and housed in sample room or the freezer of the PI's laboratory to be made available for follow-up work by the PI's or other researchers upon request. **(2) Fin clip samples:** ID-associated fin clip samples from every laboratory and field-caught individual will be taken, preserved in 95% ethanol, and housed at the University of Connecticut's to facilitate potential follow-up work by the PI's or other researchers upon request.

Data generated. At the end of the project, each laboratory individual will have been measured for (1) total and standard length (nearest mm), (2) wet weight (nearest 0.1g), (3) vertebral number (n), and (4) total mercury concentration (ng g^{-1} dw). Replicate-specific measurements include (1) survival and (2) consumption of nauplii. Daily husbandry logs including laboratory temperature conditions, salinity, and all experimental notes (manual lab-book entries) will be digitized and preserved in .pdf format. Field collected specimens will be measured for (1) total and standard length, (2) wet weight, (3) sex, and (4) total mercury concentration.

Data standards & file format. Individual trait data will be manually recorded and entered into MS Excel spreadsheets, from which they can be exported in any ASCII format such as .csv. Daily logs of environmental conditions will also be recorded in MS Excel. In addition, high-resolution X-ray radiographs will produce .TIF images of laboratory-reared individuals and then used for determining vertebral number.

Accountability. Lead PI (and primary experimenter) H. Baumann is responsible for data acquisition and management. Co-PI Z. Baumann is responsible for producing data on mercury concentrations and make them available for integration by the lead PI. Collaborator M. Urbina will retain a complete data set of both years of experiments.

Data Sharing. During the award, data will be shared among the PIs and collaborator, as well as with involved graduate students. All source data, meta-data, and analyses files will be freely available to all involved researchers during and after the project.

Data Sharing Policy. The PI's retain the right of first publication of the findings from our data. All publications will be accompanied by links to deposited source data at the BCO-DMO database, which will then become publicly available for re-use, re-analysis, or the production of derivatives by others. All data and most research-related data will be made publically available within two years of collection.

Data Protection & Preservation. All data deposited at BCO-DMO will be associated with a unique digital object identifier (DOI) that should be cited when other parties use the data. Samples will remain stored frozen or in 95% ethanol for at least 10 years after project end, as described above. Meta- and source data will be secured by depositing them at the BCO-DMO data repository (NSF, Woods Hole). In addition, all project data including scanned copies of manual lab book entries, will be securely and indefinitely stored at the PI's lab (Department of Marine Sciences, University of Connecticut) within a lab-owned 16TB 4-RAID Network hard drive

(QNAS) that is robust against accidental hard drive failures. Copies of all project-relevant files will also stored in at least two other places on the PI's personal computers.