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Dear Principal Coordinator for the Interim Secretariat of the Minamata Convention on Mercury,

I hereby submit the Seafood Mercury Database as a source of information related to Article 22, Effectiveness Evaluation, of the Minamata Convention.

The Seafood Mercury Database is an aggregated data source that is actively used to examine patterns of mercury content in finfish and shellfish, and assess mercury exposure risk to humans and piscivorous wildlife. The Seafood Mercury Database contains data on mercury concentrations measured in over 2000 species of finfish and shellfish, aggregated from over 1000 original data sources, including multiple government monitoring programs from the United States and multiple other nations, and from the academic literature. The fish and shellfish in the database include those collected through wild-capture, and market basket studies including aquacultured organisms, conducted in multiple regions of the world.

The original version of the database was developed with two primary aims: 1) to examine patterns of mercury content in common finfish and shellfish, including global measures of central tendency, variability, spatial and temporal patterns, and 2) to help assess patterns of mercury exposure risk to fish consumers and piscivorous wildlife. The data include arithmetic mean mercury concentrations, sample size, and geographic, body size, and reference information. The Seafood Mercury Database was first developed and published in 2012, and summarized in a peer-reviewed, quantitative synthesis in the journal *Environmental Health Perspectives* (http://dx.doi.org/10.1289/ehp.1205122). The database is also available to the public through the DataONE and Knowledge Network for Biocomplexity (KNB) repositories as well as other research websites. The latest version of the database has been recently updated to include additional taxonomic categories, and currently contains mercury concentration data based on over 270,000 mercury samples.

Since its inception in 2012, the Seafood Mercury Database has spawned multiple research efforts by scientists who have analyzed information from the database for multiple academic publications, particularly studies assessing risk of mercury exposure to humans. The database has also been a valuable resource in helping to identify original data sources that can be used for more intensive, focused analyses, including examining temporal trends in fish mercury content. Finally, numerous government agencies, scientists, and nonprofit organizations use the database to develop some of the most widely-used sources of seafood consumption advice in the United States. Some of these users include: Consumer Reports; Environmental Defense Fund; Monterey Bay Seafood Watch; Environmental Working Group; National Geographic Society Seafood Decision Guide; Kid Safe Seafood; FishWise; US Departments of Health/Environmental Protection: WA, OR, NJ, CT, NYC, MN; Great Lakes Consortium; Ken Davis, PhD, UNEP; Leah Gerber, PhD, Arizona State University; Gary Ginsberg, PhD, Connecticut Department of

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Health; Sarah Rothenberg, PhD, University of South Carolina; Ned Groth, PhD; Aquarium of the Pacific Seafood Hg Exhibit; Electric Power Research Institute.

As the lead investigator, I continue to update, develop, and share the Seafood Mercury Database with the specific goals of examining patterns of mercury content in finfish and shellfish, assessing mercury exposure risk to humans and piscivorous wildlife in the United States and beyond, and to track spatial and temporal changes in these patterns and risk. Given the interest and impact the database has had, particularly in developing seafood consumption advice, an additional goal is to create a web-based interface that will increase data accessibility, and allow users to query and visualize specific information from the database.

It is my hope that the Seafood Mercury Database can be a useful information source to help address Article 22. I look forward to providing any assistance.

Sincerely,

Roxanne Karimi, Ph.D.