

**Food+ Research Symposium**  
**February 27, 2015**  
**Faculty Abstract**

**[Elsie Sunderland](#)**

Associate Professor of Environmental Science and Engineering, SEAS and Department of Environmental Health, HSPH

EMAIL: [elsie\\_sunderland\[at\]harvard.edu](mailto:elsie_sunderland[at]harvard.edu)

*Health Impacts of Methylmercury in Fish and Marine Mammals.*

**ABSTRACT:** Seafood is an important source of protein and micronutrients, particularly for coastal communities in the north and developing countries. Neurocognitive deficits in children associated with methylmercury exposures are well established. Guidance on seafood consumption is less clear because of the countervailing risks associated with reduced intake of omega-3 fatty acids and other less nutritious food choices. Further, global capture fisheries are presently being harvested close to their maximum capacity. Health risks associated with global contaminants such as methylmercury extend beyond individual seafood consumption choices to the health and sustainability of fisheries. Increasingly, contaminant burdens in the tissues of marine mammals and wild fish globally are exceeding toxicological thresholds that may impact the reproductive success of these species. Fluctuations in fisheries stock abundance are generally attributed to climate change and harvesting activities rather than the direct impacts of contaminants on the health of fisheries themselves. Collapse of global fish stocks due to extreme contaminant levels such as in the coastal basins of contaminated rivers in East Asia poses a serious threat to the health of vulnerable coastal communities that depend on fishing resources.