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**Open-ended Scientific Group**  
**Minamata Convention on Mercury**  
**2<sup>nd</sup> Meeting, Minamata, 17-21 March 2025**

**OVERVIEW OF MONITORING, EMISSION AND RELEASE DATA**

**INTRODUCTION**

1. The Open-Ended Scientific Group (OESG) of the Minamata Convention developed plans for monitoring data summary and emission and release data summary as set forth in [UNEP/MC/COP/5/INF/24](#), which included an overview of available data sources of mercury monitoring, emissions and releases.

2. As a next step in the process to develop a scientific report addressing the guiding questions outlined in the “Guidance on monitoring of mercury and mercury compounds to support evaluation of the effectiveness of the Minamata Convention”, as set forth in [UNEP/MC/COP.4/INF/12](#), the OESG started compiling data on mercury levels in biota, water, sediment, soil, and in humans, as well as data from emissions and releases inventories. On 26 September 2023, the Executive Secretary of the Minamata Convention issued a letter to the national focal points and observer organizations to the Conference of the Parties to invite them to submit an expression of intent to provide data by 20 October 2023. Potential providers of data were invited to specify brief description of the data, type of data, time span, geographic scope, and conditions of use of the data. The following types of data were listed in the letter.

- National inventories:
  - Emissions to air
  - Releases to land and water
- Observational / Monitoring data:
  - Air
  - Biota (animals and plants). Please explain: <Text entry>
  - Human biomonitoring
  - Soil
  - Sediments (incl. sediment cores)
  - Fresh water
  - Ocean water

3. The secretariat, with the support of the Biodiversity Research Institute, established an online data repository where data submissions can be collected for use by the OESG. Those who submitted an expression of intent were invited to submit data using the data format templates developed by the OESG, or alternatively submit data in their format providing sufficient documentation so that the OESG can work on the data compilation. They were also invited to submit a data use authorization form.

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4. The OESG, having reviewed the list of 106 expressions of interest, also agreed to strengthen the efforts to collect existing data, while compiling and analyzing submitted data. The renewed call for expression of interest was sent to national focal points and observers on 31 May 2024.
  5. OESG members and experts in the roster to support the work of the OESG were given access to the submitted data, after submitting a data use agreement committing to abide by data use restrictions as specified for each data set. The tasks assigned to the OESG members and rostered experts are described in Annex I, with instructions on the access to data set.
  6. Annex II provides an overview of data submitted to the data repository as of 10 March 2025, as extracted from the data tracking sheets maintained by the Biodiversity Research Institute.

## Annex I: Tasks for OESG Members and Rostered Experts:

- **Sign Up for Access to the OESG Data Workspace**

- Create a free account at <https://account.box.com/signup/personal?tc=annual>
- Complete Data User Agreement (<https://forms.office.com/r/mb5iMC82MK>)
- BRI will share the Box folders with your Box account.

- **Data Repository Structure**

**Folder: OESG\_DataProject\_Submissions**

New submissions using the upload submission forms (links at bottom) go directly to 1\_NewSubmissions folder within each team folder.

BRI will process them by documenting the submission, confirming an associated data use authorization form, and evaluating for required fields. We will also archive all submitted data sets in a 2\_RawDataFiles folder.

OESG members and experts have View/Download permissions

**Folder: OESG\_DataProject\_Working**

Submitted data sets will be moved to a 1\_Working folder within each team folder.

Each team folder has a tracking sheet with metadata about each potential/submitted dataset and its current status. OESG members and experts should consult the tracking form, add information about new potential data providers, and indicate if they made initial contact in column D.1. Initial Contact. (See Section below on Recruiting Data Providers). BRI will manage the letter with submission instructions only after an intent to submit form is submitted.

OESG members and experts have Read/Write permissions

- **Recruit Data Providers**

Send individuals or organizations that have relevant Hg data the link to the intent to submit form (<https://forms.office.com/r/dTZRj2Zn2N>) and encourage them to participate. You may include the Secretariat's re-invitation email ([https://minamataconvention.org/sites/default/files/documents/information\\_document/Re-invitation\\_expression\\_of\\_intent.pdf](https://minamataconvention.org/sites/default/files/documents/information_document/Re-invitation_expression_of_intent.pdf)).

Record your initial contact in the tracking sheet in the data workspace for the appropriate media.

- **Recruit Data Analysts**

Encourage data providers to join the expert roster and participate in the analysis by contacting the Secretariat, [Eisaku.Toda@un.org](mailto:Eisaku.Toda@un.org)

- **Stand-By to Help Retrieve or Process Available Data.**

Team Leads should monitor the workspace and tracking lists. BRI will manage the follow-up with data providers and request assistance from the Teams as appropriate.

## Other Useful Links:

### Links to documents

Convention's webpage on intersessional work: <https://minamataconvention.org/en/intersessional-work-and-submissions-cop-6#sec2417>

OESG workspace (past meeting docs etc): <https://owncloud.unog.ch/s/vdbCGAVHNRBSuJE>,  
Password: MCOESG2022

### Links to data templates:

Air <https://biodiversityresearchinstitute.box.com/s/1hiehdixoeqm7chi9mwyw2pqnq2o6zy>

Biota <https://biodiversityresearchinstitute.box.com/s/sqp1d7f6elku3b1uh9229xm8hww173j7>

Emissions <https://biodiversityresearchinstitute.box.com/s/qli9aeybvzayf8nav4eofwp0a0dcv7eb>

Other Matrices <https://biodiversityresearchinstitute.box.com/s/mdbdshzvklzie4642g95hef3wwf7zpm>

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**Links to upload submissions:**

Air <https://biodiversityresearchinstitute.app.box.com/f/f480d25df74f4fe3a83ca9f2603b4aca>

Biota <https://biodiversityresearchinstitute.app.box.com/f/9e9949de4aa94917bdf4981d64528818>

Emissions <https://biodiversityresearchinstitute.app.box.com/f/aafc1c4229504a268da4acd517db0193>

Other Matrices <https://biodiversityresearchinstitute.app.box.com/f/71a20ee6adc244ee9772f7db4315579e>

Human <https://biodiversityresearchinstitute.app.box.com/f/8aa511a44ff345b4bc0485167021973d>

## Annex II: Overview of data in data repository

### Emissions and releases

A.3. Affiliation (organization name):	A.4. Country	B.1. Brief description of the data:*	D.3. Intent to Submit Form Received	D.5. Data Already Received Y/N
Environment and Climate Change Canada National Pollutant Release Inventory (NPRI)	Canada	<p>The National Pollutant Release Inventory (NPRI) intends to submit facility-reported annual data on point-source release quantities to water and land from facilities that manufacture, produce or otherwise use 5kg or more of mercury (and its compounds*) per calendar year. The country-level annual data is able to be broken down by sector (using North American Industrial Classification System, or NAICS, codes; or Minimata Convention Annex D sectors). Uncertainty analysis is not available. This would be relevant to Article 9 of the Minimata Convention.</p> <p>If so desired, NPRI can also offer two additional datasets: 1) point-source release data to air (relevant to Article 8, and complementary to National total mercury emissions data from Canada's APEI – Air Pollutant Emissions Inventory), and 2) data from NPRI facilities on quantities of mercury in institutional waste going to either onsite or offsite disposal, or to treatment, or recycling (including the location of the offsite destinations). This would be pertinent for informing Article 11 of the Minimata Convention.</p> <p>* Total of the pure element and the equivalent weight of the element contained in any compound, alloy or mixture.</p>	Y	Y
Rijkswaterstaat	The Netherlands	all publicly available data	Y	
University of Manitoba	Canada	<p>Compiled emissions data for geogenic sources (volcanoes – persistent degassing and sporadic eruptions; geothermal fields; rock weathering and soil emissions) estimated from emission factors compiled from the literature, in Excel file format (or .csv format is requested) and NetCDF format. The Excel dataset how only volcanic (persistent degassing and eruptions) while the NetCDF dataset contains all geogenic source data. SO<sub>2</sub> data, to which Hg is indexed based on a representative median emission factor (i.e., Hg/SO<sub>2</sub>), is obtained from multiple satellite spectrometers from Fioletov et al. (Earth Syst. Sci. Data, 15, 75–93, 2023, <a href="https://doi.org/10.5194/essd-15-75-2023">https://doi.org/10.5194/essd-15-75-2023</a>) and Tournigand et al. (Earth Syst. Sci. Data, 12, 3139–3159, 2020, <a href="https://doi.org/10.5194/essd-12-3139-2020">https://doi.org/10.5194/essd-12-3139-2020</a>). As these data are from the published literature, SO<sub>2</sub> data has undergone quality control and peer review, as well as the literature-based emission factors used to estimate Hg emissions obtained from 10 literature sources. Similarly, estimating Hg from geothermal systems uses published CO<sub>2</sub> fluxes (Supplementary Table 8.3 from Werner, C., et al., 2019,. Carbon Dioxide Emissions from Subaerial Volcanic Regions: Two Decades in Review. In B. Orcutt, I. Daniel, &amp; R. Dasgupta (Eds.), Deep Carbon: Past to Present, pp. 188-236. Cambridge: Cambridge University Press) and Hg/CO<sub>2</sub> EFs from the literature (n = 10). The spatially distributed global 2D geogenic emissions at the horizontal resolution of 0.5° (format: NetCDF) has been prepared within a joint initiative – Multi-Compartment Mercury Modeling and Analysis Project (MCHgMAP) - between the Integrated Analysis small group</p>	Y	

		(OESG, Minamata Convention) and the Task Force on Hemispheric Transport of Air Pollutants (TF HTAP) of the LRTAP Convention under the leadership of Dr. Ashu Dastoor (ashu.dastoor@ec.gc.ca).		
Ministry of the Environment, Water, and Ecological Transition of Ecuador.	Ecuador	On July 7, 2021, the signing of the Cooperation Agreement between the United Nations Environment Programme (UNEP), the Sustainable Environmental Investment Fund (FIAS), and the Ministry of the Environment, Water, and Ecological Transition (MAATE) took place for the execution of the project "Strengthening Capacities in the Implementation of the Minamata Convention in Ecuador," hereinafter referred to as the FOCAME Project. In this context, the overall objective of the project includes the identification of sources of mercury emissions and releases, in accordance with Articles 8 and 9 of the Minamata Convention on Mercury. It also involves examining the environmental authorizations granted to these activities recognized as emission and release sources (16 categories such as landfills, wastewater treatment plants, non-ferrous metal smelting, clinker cement production, incinerators, etc.). After obtaining the permits, the work has been complemented by compiling and analyzing environmental monitoring conducted by these industries, which, in some cases, includes the analysis of mercury parameters in water and soil. It is worth noting that there is no regulation in Ecuador obliging the monitoring of mercury in the air, and there are no accredited laboratories in the country capable of doing so. In conclusion, the project has compiled a matrix with the results of mercury monitoring in water and soil from certain industries, analyzing whether these results comply with the permissible limits according to regulations. Furthermore, as part of the project's objectives, to fulfill the product "Strategy to prioritize, manage, and, as appropriate, rehabilitate sites contaminated with mercury," three sites considered potentially contaminated were selected (a landfill, a pool at an oil platform, and an area affected by illegal mining located in a national park). Monitoring of water and soil was conducted at these sites, confirming the presence of mercury, and in some cases, values exceeded permissible limits.	Y	
Clean Air and Industrial Sustainability Unit, Ministry for the Ecological Transition and the Demographic Challenge	Spain	The Spanish National Emission Inventory contains detailed information on annual emission estimates of air quality pollutants (including mercury) by source in Spain for the EMEP domain from 1990 onwards. The methods used to estimate emissions rely on both observed emission data and calculation procedures. Throughout the Inventory cycle, different quality control activities and procedures are performed and properly documented.	Y	
Clean Air and Industrial Sustainability Unit, Ministry for the Ecological Transition and the Demographic Challenge	Spain	The PRTR (Pollutant Release and Transfer Register) data for Spain comprises detailed information on the release and transfer of pollutants (including mercury) from industrial facilities across the country. It includes mercury released to air, water and soil and transferred off-site for treatment or disposal. The data is sorted into industrial categories, which group various industrial activities according to how they operate, what they produce, and the environmental effects they may have. In total, the PRTR collects a total of 65 industrial categories. The E-PRTR information is updated annually and reviewed and validated by the competent environmental authorities.	Y	Y
European Commission, Joint Research Centre	N/A	The Emissions Database for Global Atmospheric Research (EDGAR) is a multipurpose, independent, global database of human emissions of greenhouse gases, air and toxic pollutants on Earth. EDGAR is a bottom-up global inventory, which uses as input activity data from international statistics and emissions factors from official guidebooks. It provides independent emission estimates to both policy makers and scientific community. The version EDGARv8.0_toxHg will provide mercury emissions for all countries. The emissions time series, which cover the period 1970-2022, will be	Y	Y

		<p>publicly available and could be downloaded in .xlsx format. The emissions will be aggregated using both IPCC classification and Minamata classification (tbc) as indicated in "Hg emissions and releases reporting format for Effectiveness Evaluation" document. Annual and sector-specific emissions gridmaps will be provided in text, netcdf and image formats.</p> <p>Mercury emissions estimations in EDGAR are primarily based on the methodology recommended by the Long-Range Transboundary Air Pollution Convention, EMEP/EEA guidebook. The mercury emissions will be provided for the key emitting anthropogenic sources**. The estimated date for publishing EDGARv8.0_toxHg is January 2024, which is the deadline for data submissions indicated in the updated "Plan for data analysis consistent with the Monitoring Guidance" of the Open Ended Science Group (OESG) of Minamata Convention. **For the Artisanal Small Scale Gold Mining (ASGM) activity, there is scarce information in scientific literature, specifically on the achievements related to emissions mitigation in the latest years. In order to provide a more realistic view on global mercury emissions from ASGM, we would like to use also information reported by countries; we would be grateful if you could give us access/provide web links to the most recent national official emissions reporting for ASGM sector.</p>		
Australian Government Department of Climate Change, Energy, the Environment and Water	Australia	<p>National Pollutant Inventory (NPI) (<a href="https://www.dcceew.gov.au/environment/protection/mpi">https://www.dcceew.gov.au/environment/protection/mpi</a>)</p> <p>Australia's PRTR collects annual emissions, releases, and transfers data reported by industrial facility operators. State and territory regulators conduct quality controls on the data with support from the Australian Government. Bulk downloads of emissions/releases and transfers data are available in Excel (XLSX) and CSV formats. Most facilities report to the NPI on a financial-year cycle (1 July to 30 June) with others reporting on a calendar-year or other cycle. To convert NPI financial years to international reporting years, use the first year (e.g. 2021/2022 NPI data is 2021 international data).</p>	Y	Y
Swedish Environmental Protection Agency	Sweden	<p>The Swedish environmental monitoring of hazardous substances includes monitoring of mercury in air and precipitation, lakes, marine areas, offshore sediments, mosses and humans. Some data series started in the 1960's and most are at least 40 years. The following monitoring programs include mercury:</p> <p>Metals and organic pollutants in marine biota - herring, cod, perch, seaweed brine, scrub, dab, blue mussel and guillemot egg (FULLTEXT01.pdf (diva-portal.org)).</p> <p>Metals and organic pollutants in fresh water biota – char, pike and perch (<a href="http://naturvardsverket.diva-portal.org/smash/get/diva2:1476460/FULLTEXT01.pdf">http://naturvardsverket.diva-portal.org/smash/get/diva2:1476460/FULLTEXT01.pdf</a>)</p> <p>Metals in mosses – Has been done every fifth year since 1975. Since the mosses almost exclusively take up metals from the air, the method gives a good picture of the deposition. (In Swedish with English summary <a href="https://www.ivl.se/download/18.76c6e08e1573302315f20e/1474381195136/C204.pdf">https://www.ivl.se/download/18.76c6e08e1573302315f20e/1474381195136/C204.pdf</a>)</p> <p>Metals in air and precipitation – total gaseous mercury (TGM) in air and total mercury in precipitation is measured at four stations, total particulate mercury (TPM) in air is measured at two stations and gaseous oxidised mercury (RGM) in air is measured at one station. One station has automated continuous measurements of TGM, TPM and RGM in air. Measurement data is reported to EMEP.</p> <p>Contaminants in Swedish offshore sediments (<a href="https://resource.sgu.se/dokument/publikation/sgurapport/sgurapport202208rapport/s2208-rapport.pdf">https://resource.sgu.se/dokument/publikation/sgurapport/sgurapport202208rapport/s2208-rapport.pdf</a>)</p> <p>Metals in humans – mercury levels in hair of first-time mothers in central Sweden is measured every</p>	Y	

		year, mercury levels in blood of about 100 7-8 year old children in the south of Sweden is measured every two years and mercury levels in urine of about 100 men and 100 women in age-groups 25-34 and 50-60 in the north of Sweden is planned to be measured every five years. An article describing the monitoring of mercury in hair: Total mercury in hair as biomarker for methylmercury exposure among women in central Sweden – a 23 year long temporal trend study - ScienceDirect <a href="https://www.sciencedirect.com/science/article/pii/S0269749120364010?via%3Dihub">https://www.sciencedirect.com/science/article/pii/S0269749120364010?via%3Dihub</a>		
Norwegian Environmental Agency	Norway	This report documents the methodologies used in the Norwegian emission inventory of acidifying pollutants, particulate matters, heavy metals and persistent organic pollutants submitted under the UNECE Convention on Long- range Transboundary Air Pollution. Norway has prepared an inventory of emissions from relevant sources. The inventory is available online at <a href="https://www.norskeutslipp.no/">https://www.norskeutslipp.no/</a> . Statistics Norway and the Norwegian Environment Agency calculate the total annual national emissions to water and air. Releases to air and water as well as transfers of waste from different sectors, both aggregated and at facility level are presented through the national pollutant release and transfer register. The data collected to the Norwegian register is consistent with the European Pollutant Release and Transfer Register (E-PRTR) and Norway submits data to the E-PRTR on an annual basis. All industrial facilities having a permit under the Pollution Control Act are obliged to report yearly emission data to the national pollutant release and transfer register. This includes land-based industries, offshore petroleum industry, landfills and wastewater treatment plants. The facilities report through an official online webservice.	Y	
Prefectural University of Kumamoto	Japan	Our data was compiled by reviewing data on mercury published by the Japanese national and local governments.	Y	
Vrije Universiteit Brussel (VUB)	Belgium	The data from our side are the measurement data of Hg and MeHg in the water and sediments of the Belgian Coastal Zone and Scheldt estuary. They are saved in excel files in the contacting persons' hand since they are the full-time professors working at VUB. This is the data of Hg and MeHg concentrations measured during the scientific sampling cruises. They are available by request for scientific communication and also supporting Hg conventions.	Y	
Ministry of Environment and Tourism, Department of Environmental Protection	Botswana	Baseline inventory of mercury in Botswana	Y	Y
UNEP	Global	GMA 2015		

#### Air monitoring

Affiliation (organization name):	Country	Brief description of the data:*	Intent to Submit Form Received	Data Already Received Y/N

Environment and Climate Change Canada	Canada	Atmospheric mercury concentration data from Canada. Data consists of total gaseous mercury, gaseous elemental mercury and speciated mercury. The data is from several sites across Canada over differing time periods.	Y	Y
Environment and Climate Change Canada	Canada	Canada's led Global Mercury Passive Sampling Program. Samples are collected quarterly using the MerPAS® system and analysed at ECCC.	Y	N
Environment and Climate Change Canada	Canada	Mercury in wet deposition collected at Canadian Air and Precipitation Monitoring Network (CAPMoN) sites. Data are reported through the U.S. National Atmospheric Deposition Program's Mercury Deposition Network.	Y	N
IGE – Institut des Géosciences de l'Environnement	France	Continuous measurements of atmospheric mercury at Chacaltaya Observatory in Bolivia (Level 2 data -validated, hourly resolution see: <a href="https://gmos.aeris-data.fr/gmos-fr-data-products/">https://gmos.aeris-data.fr/gmos-fr-data-products/</a> )	Y	Y
IGE – Institut des Géosciences de l'Environnement	France	Continuous measurements of atmospheric mercury at Dumont D'Urville (L1) in Antarctica (Level 1 data are the quality-checked GMOS-FR dataset following international SOP, with data in original time resolution acquisition, ready to be distributed through the GMOS-FR data portal. Data L1 users have to keep in mind that, even if L1 data provides high-quality checked dataset, this one may be improved for more elaborated data product, depending of the study scope: <a href="https://gmos.aeris-data.fr/gmos-fr-data-products/">https://gmos.aeris-data.fr/gmos-fr-data-products/</a> )	Y	Y
IGE – Institut des Géosciences de l'Environnement	France	Continuous measurements of atmospheric mercury at Dome Concordia (L2) in Antarctica (Level 2 data -validated, hourly resolution see: <a href="https://gmos.aeris-data.fr/gmos-fr-data-products/">https://gmos.aeris-data.fr/gmos-fr-data-products/</a> )	Y	Y
IGE – Institut des Géosciences de l'Environnement	France	Continuous measurements of atmospheric mercury at Maito Observatory, La Reunion Island, France (Level 2, validated, hourly average: <a href="https://gmos.aeris-data.fr/gmos-fr-data-products/">https://gmos.aeris-data.fr/gmos-fr-data-products/</a> )	Y	Y
IGE – Institut des Géosciences de l'Environnement	France	Continuous measurements of atmospheric mercury at Amsterdam Island (Level 2 data -validated, hourly resolution see: <a href="https://gmos.aeris-data.fr/gmos-fr-data-products/">https://gmos.aeris-data.fr/gmos-fr-data-products/</a> )	Y	Y
Centro de Innovacion Cientifica Amazonica/ Wake Forest University	Peru	Our data cover ASGM sites in Madre de Dios, Southern Peruvian Amazon samples have been taken 6 mining concessions and a few control sites (2 or 3 sites) in Madre de Dios. In 2024 we will take more samples in the North Peruvian Amazon	Y	N
National Atmospheric Deposition Program	United States of America	We have three sets of data. 1. Wet Deposition of Atmospheric Mercury (our Mercury Deposition Network), including wet deposition of ~150 site locations over multiple years (1996-present). Data is weekly 2. Atmospheric concentrations of Mercury (our Atmospheric Mercury Network), including hourly atmospheric concentrations of mercury at approximately 30 locations over multiple years (2011 to present). Data is hourly 3. Concentrations of mercury in litterfall (our Mercury Litterfall Network), including biomass flux and mercury content of this flux, about 25 individual sites, with some data going back to 2012, through present. Data is monthly, confined to the fall and winter season	Y	Y
Ministry of the Environment	Japan	Continuous speciated atmospheric mercury (1 hour GEM and 2 hours GOM, PBM cycle) and wet deposition (total mercury, 1 week cycle) monitoring data. Data are provided in csv format. Data quality is reviewed by an expert committee.	Y	Y

Ministry of the Environment	Japan	Total gaseous atmospheric mercury (sampling time: 24 hours, frequency: monthly). QA/QC is performed according to the official national method (e.g. blank test, sensitivity check and reproducibility)).	Y	N
Finnish Meteorological Institute	Finland	Air (TGM/Tekran) and deposition (bulk, monthly)	Y	N
National Research Center for Environmental Analysis and Measurement, Beijing, 100029	China	Hg monitoring data from Chinese mainland observation sites in csv format. Gaseous elemental Hg monitoring data has been hourly averaged. Data has been quality controlled.	Y	N
Australian Government Department of Climate Change, Energy, the Environment and Water	Australia	Mercury measurements in air Mercury species: Gaseous Elemental Mercury (Hg0, GEM) Sampling method: continuous analyser Equipment used: Tekran models 2537B and 2537X. Frequency of observations: 5-15 minute observations reported as 1-hour averages. Unit of concentration measurement: ng/m3 at 0 degC, 1013.25 hPa Quality Assurance Flags using GMOS criteria	Y	N
United Nations Environment Programme Regional Office for Asia and the Pacific	N/A	This survey aimed to evaluate the feasibility and challenges for introducing ambient mercury monitoring by gold trap method, which will be included in the monitoring guidance of Minamata Convention, to existing monitoring sites. Niigata- Maki national acid deposition monitoring station is monitoring acid deposition and air pollutant concentration and investigating acid deposition in rural areas on the coast of the Sea of Japan. At the station, gaseous pollutants such as SO2, NO, NO2, O3, particulate matter concentrations of PM10, PM2.5, ionic and metallic components, water soluble organic carbon, and meteorological parameters of wind direction, wind speed, temperature, relative humidity, precipitation amount, solar radiation are monitored. 24-hour samplings were performed in every 2 weeks by manual gold amalgamation trap. After the sampling, the collection tubes were sent to Japan Environment Sanitation Center at Kawasaki, Japan for the total mercury analysis. 2 mercury samples and 1 blank sample were analysed at every measurement followed by the Japanese guideline. This guideline adopts gold amalgamation trap, thermal desorption and cold vapor atomic absorption spectrometry. The quantity of mercury is measured by the atomic absorption at a wavelength of 253.7nm. Tabulated form including bi-weekly mercury concentration measurement data and metadata of meteorological parameter will be prepared, and the monitoring data will be compiled once the survey is concluded at the end of October 2023.	Y	Y
Swedish Environmental Protection Agency	Sweden	The Swedish environmental monitoring of hazardous substances includes monitoring of mercury in air and precipitation, lakes, marine areas, offshore sediments, mosses and humans. Some data series started in the 1960's and most are at least 40 years. The following monitoring programs include mercury: Metals and organic pollutants in marine biota - herring, cod, perch, seaweed brine, scrub, dab, blue mussel and guillemot egg (FULLTEXT01.pdf (diva-portal.org)). Metals and organic pollutants in fresh water biota – char, pike and perch (http://naturvardsverket.diva-portal.org/smash/get/diva2:1476460/FULLTEXT01.pdf) Metals in mosses – Has been done every fifth year since 1975. Since the mosses almost exclusively	Y	Y

		<p>take up metals from the air, the method gives a good picture of the deposition. (In Swedish with English summary  <a href="https://www.ivl.se/download/18.76c6e08e1573302315f20e/1474381195136/C204.pdf">https://www.ivl.se/download/18.76c6e08e1573302315f20e/1474381195136/C204.pdf</a>)</p> <p>Metals in air and precipitation – total gaseous mercury (TGM) in air and total mercury in precipitation is measured at four stations, total particulate mercury (TPM) in air is measured at two stations and gaseous oxidised mercury (RGM) in air is measured at one station. One station has automated continuous measurements of TGM, TPM and RGM in air. Measurement data is reported to EMEP.</p> <p>Contaminants in Swedish offshore sediments  <a href="https://resource.sgu.se/dokument/publikation/sgurapport/sgurapport202208rapport/s2208-rapport.pdf">https://resource.sgu.se/dokument/publikation/sgurapport/sgurapport202208rapport/s2208-rapport.pdf</a>)</p> <p>Metals in humans – mercury levels in hair of first-time mothers in central Sweden is measured every year, mercury levels in blood of about 100 7-8 year old children in the south of Sweden is measured every two years and mercury levels in urine of about 100 men and 100 women in age-groups 25-34 and 50-60 in the north of Sweden is planned to be measured every five years. An article describing the monitoring of mercury in hair: Total mercury in hair as biomarker for methylmercury exposure among women in central Sweden – a 23 year long temporal trend study - ScienceDirect  <a href="https://www.sciencedirect.com/science/article/pii/S0269749120364010?via%3Dihub">https://www.sciencedirect.com/science/article/pii/S0269749120364010?via%3Dihub</a></p>		
Arctic Monitoring and Assessment Programme (AMAP)	International (Arctic region)	Data on mercury in air and atmospheric deposition samples compiled by AMAP to support its assessments of mercury in the Arctic (most recent assessment was for 2021). QA/QC of data submitted to AMAP data centers is the responsibility of data providers. Data used in AMAP assessments have been qa/qc'd for AMAP use. Most laboratories providing data to AMAP are participating in relevant mercury inter-calibration exercises/inter-laboratory performance studies (some organized by AMAP). Air time-series data are generally based on continuous monitoring (yearly/seasonally aggregated in data products).	Y	N
GET- Geosciences Environnement Toulouse	France	Continuous measurements of atmospheric mercury at Pic du Midi (L2), France (Level 2 data -validated, hourly resolution see: <a href="https://gmos.aeris-data.fr/gmos-fr-data-products/">https://gmos.aeris-data.fr/gmos-fr-data-products/</a> )	Y	Y
ETH Zurich	Switzerland	The data were obtained using mercury passive air samplers (MerPAS) in 27 households (7 days) and at 14 outdoor locations (29–31 days) in Basel, Switzerland. The data are provided in the SI of this paper: <a href="https://doi.org/10.1021/acs.estlett.0c00110">https://doi.org/10.1021/acs.estlett.0c00110</a> .	Y	Y
Norwegian Environmental Agency	Norway	Mercury has been monitored at Birkenes and Andøya on the Norwegian mainland, and at the Zeppelin station on Svalbard. Zeppelin is a global background station and has provided monitoring data since 1990. Measurements of mercury in air are conducted continuously and mercury in precipitation weekly. In 2021 the monitoring program was expanded to include mercury in precipitation at two additional stations, Hurdal and Kårvatn on mainland Norway. In 2021, measurements of mercury species (measured as gaseous oxidized mercury (GOM) and particulate bound mercury (PBM)) in air was introduced to the monitoring program at Zeppelin. In 2022 monitoring at Andøya station ceased and the Andøya station was replaced with a new monitoring station in Oslo. The station in Oslo will provide new and valuable knowledge about environmental contaminants, including mercury, urban air.	Y	N
Prefectural University of Kumamoto	Japan	Our data was compiled by reviewing data on mercury published by the Japanese national and local governments.	Y	N

IVL Swedish Environmenatl Research Institute	Sweden	Measurements of Dissolved Gaseous Mercury in surface water and Gaseous Elemental Mercury, Gaseous Oxidized Mercury and Total Particulate Mercury in air from three Antarctica expeditions during 2010 and 2013.	Y	N
Environment and Climate Change Canada	Canada	Atmospheric mercury data active and passive.	Y	N
National Research Council (CNR) of Italy	Italy	Large GOS4M database on atmospheric mercury	Y	N
Norwegian Institute for Air Research (NILU)	Norway	Large EBAS database on atmospheric mercury	Y	Y
Environmental Protection Administration Executive Yuan	China	Large APMMN database on atmospheric mercury	Y	N
South African Weather Service	South Africa	PAS network		Y
National Research Council (CNR) of Italy	Italy	PAS Hg monitoring network in Italy.	Y	N

**Other abiotic media monitoring**

A.3. Affiliation (organization name):	A.4. Country	B.1. Brief description of the data:*	D.3. Intent to Submit Form Received	D.5. Data Already Received Y/N
Vrije Universiteit Brussel (VUB)	Belgium	The data from our side are the measurement data of Hg and MeHg in the water and sediments of the Belgian Coastal Zone and Scheldt estuary. They are saved in excel files in the contacting persons' hand since they are the full-time professors working at VUB. This is the data of Hg and MeHg concentrations measured during the scientific sampling cruises. They are available by request for scientific communication and also supporting Hg conventions.	Y	Y
Environment and Climate Change Canada	Canada	Compilation of both temporal trends of Hg concentrations and depositional flux magnitude derived from sediment cores, ice cores, and tree ring records for both the pre- and post-industrial periods to constrain Hg mass balance modelling. Both total/uncorrected and fully corrected (for sediment focusing and catchment contributions) sediment-derived Hg fluxes will be compiled, with the latter likely better reflecting wet plus dry atmospheric contributions. This data set will be used to inform mass balance modelling but can be made available for other applications for the effectiveness evaluation.	Y	

Australian National University	Australia	Published paper (Mercury atmospheric emission, deposition and isotopic fingerprinting from major coal-fired power plants in Australia: Insights from palaeo-environmental analysis from sediment cores); also Published paper (Solving the puzzle of mercury fate and emissions by coal-fired power plants: The potential of hydrodynamic-atmospheric modelling)		
Environment and Climate Change Canada	Canada	As part of Canada's Oil Sands Monitoring program, snowpack and lake sediment cores located varying distances away from major oil sands developments in Fort McMurray, Alberta, Canada have been collected between 2011-2023. Snowpack collections were carried out annually between 2011-2023 and include total and methylmercury concentrations and depositional loads at impacted and "background" sites in the Peace Athabasca Delta/Wood Buffalo National Park. Complete snowpack profiles were collected using a clean stainless steel snow corer at maximum snowpack depth at the end of winter (beginning of March for this region). Sediment cores were collected between 2011-2015 and have been dated using Pb-210 dating methods and span the last ~100-150 years of Hg deposition.	Y	
Universidad Nacional Autónoma de México Research Network of Marine-Coastal Stressors in Latin America and the Caribbean (REMARCO)	México	Spatial and temporal variations of mercury (Hg) concentrations, enrichment, and potential ecological risks were studied in a suite of lead-210 (210Pb) dated sediment cores from 13 Wider Caribbean Region coastal environments. Broad variability of Hg concentrations (19–18761 ng/g) was observed, encompassing even background levels (38–100 ng/g). Most of the sediment sections, showing from moderately to very severe Hg enrichment, were found in cores from Havana Bay and Sagua River Estuary (Cuba), Port-au-Prince Bay (Haiti), and Cartagena Bay (Colombia). These were also the most seriously contaminated sites, which can be considered regional Hg 'hotspots'. Both Havana Bay and Port-au-Prince Bay reportedly receive waste from large cities with populations exceeding 2 million inhabitants, and watersheds affected by high erosion rates. The records from the Sagua River Estuary and Cartagena Bay reflected historical Hg contamination associated with chloralkali plants, and these sites are of very high ecological risk. This information has been accepted for publication in the journal Science of the Total Environment ( <a href="https://doi.org/10.1016/j.scitotenv.2024.170609">https://doi.org/10.1016/j.scitotenv.2024.170609</a> ). The data can be provided in MSEXcel format (*.csv).	Y	
ICP Vegetation Programme Coordination Centre	Australia	ICP Vegetation reports to the Working Group on Effects of the Convention on Long-range Transboundary Air Pollution.	N	
Environment and Climate Change Canada	Canada	Sediment quality data for 20 lakes across Canada. Parameters include total mercury, methylmercury, sulfate, inorganic and organic carbon, nitrogen, and total recoverable metals. Bottom sediment samples were collected from one to three locations on each lake, following nationally standardized protocols. Sampling period was 2011 to 2016, with some core lakes sampled throughout the period and others sampled one time only. Data indicated as validated, available as csv file.	Y	
Norwegian Environmental Agency	Norway	Mareano Chemistry Program has as collected sediment samples since 2006 as part of mapping the composition of the seabed and its environmental status within the Norwegian marine territory. The Chemistry program has analyzed sediments	Y	

		systematically through the collaboration between the Geological Survey of Norway (NGU) and the Institute for Marine Research (IMR).		
Northern Territory Government, Department of Environment, Parks and Water Security	Australia	Marine sediment data from pilot projects that underpinned the development of the sediment monitoring program of the Darwin Harbour Integrated Marine Monitoring and Research Program	N	
Department of Civil Engineering, Monash University, Victoria, Australia	Australia	Published paper (Background concentrations of mercury in Australian freshwater sediments: The effect of catchment characteristics on mercury deposition)		
Fenner School of Environment and Society, Australian National University, Acton, ACT, AU	Australia	Published paper (The spatial legacy of Australian mercury contamination in the sediment of the Molonglo River)		
Australian Government Department of Climate Change, Energy, the Environment and Water	Australia	Database name: Mercury contamination of Derwent sediments Frequency: intermittent. Description: DEP has conducted 2 extensive sediment surveys (2000 and 2011). 136 sites sampled in 2000 and 123 in 2011. There are 77 sites in common between the two surveys. These studies sampled surface sediment only (integrated 5cm surface sample).  Another survey was conducted in 2020 but no mercury data was collected.  Three other major surveys have been conducted in the Derwent (1996, 1996, 1997). These papers are referenced in the DEP State of the Derwent Report, 2015, pp 150. Format: Tabular data stored as .csv QC: Data has been quality controlled	Y	
	Australia	National Geochemical Survey of Australia	N	
Environment and Climate Change Canada	Canada	The Great Lakes Sediment Database (also known as the National Water Research Institute (NWRI) Sediment Archive) is an archive of data on the sediments of the Great Lakes, their connecting channels, and the St. Lawrence River which was collected by NWRI and in cooperation with other agencies between 1960 and 1975. It is housed in Environment and Climate Change Canada's Canada Centre for Inland Waters in Burlington, Ontario. See the following link for more information <a href="https://data-donnees.ec.gc.ca/data/substances/monitor/great-lakes-water-quality-monitoring-and-aquatic-ecosystem-health-data/great-lakes-sediment-archive-database-1960-1975/?lang=en">https://data-donnees.ec.gc.ca/data/substances/monitor/great-lakes-water-quality-monitoring-and-aquatic-ecosystem-health-data/great-lakes-sediment-archive-database-1960-1975/?lang=en</a> Mercury sediment data is available at 1915 sites/samples throughout the Great Lakes. Samples were collected in several locations during lake surveys. Each lake/bay area only has data for one year, with the exception of Hamilton Harbour which has data for 1960 and 1971. This data set is identified as having a quality assurance as "complete, externally consistent data set of specified quality that consists of research	Y	

		products that have undergone interpretative and diagnostic analyses by the project staff or user community." Data is available in csv file format.		
Environment and Climate Change Canada	Canada	Sediment quality data from the Great Lakes collected to determine baseline status, long term trends and spatial distributions, the effectiveness of management actions, determine compliance with sediment quality objectives and identify emerging issues are included in this dataset. Mercury data are available for respective water bodies for certain years where samples are typically collected during the summer months during 2013 (Detroit River), 2014 (Lake Erie, Lake St. Clair, St. Clair River), 2016 (Lake Superior), 2017 (Georgian Bay, Lake Huron and ST. Mary's River), and 2018 (Lake Ontario). Mix of validated and provisional data, available in csv format. Mercury data available at over 300 locations.	Y	
Swedish Environmental Protection Agency	Sweden	The Swedish environmental monitoring of hazardous substances includes monitoring of mercury in air and precipitation, lakes, marine areas, offshore sediments, mosses and humans. Some data series started in the 1960's and most are at least 40 years. The following monitoring programs include mercury: Metals and organic pollutants in marine biota - herring, cod, perch, seaweed brine, scrub, dab, blue mussel and guillemot egg (FULLTEXT01.pdf (diva-portal.org)). Metals and organic pollutants in fresh water biota – char, pike and perch ( <a href="http://naturvardsverket.diva-portal.org/smash/get/diva2:1476460/FULLTEXT01.pdf">http://naturvardsverket.diva-portal.org/smash/get/diva2:1476460/FULLTEXT01.pdf</a> ) Metals in mosses – Has been done every fifth year since 1975. Since the mosses almost exclusively take up metals from the air, the method gives a good picture of the deposition. (In Swedish with English summary <a href="https://www.ivl.se/download/18.76c6e08e1573302315f20e/1474381195136/C204.pdf">https://www.ivl.se/download/18.76c6e08e1573302315f20e/1474381195136/C204.pdf</a> ) Metals in air and precipitation – total gaseous mercury (TGM) in air and total mercury in precipitation is measured at four stations, total particulate mercury (TPM) in air is measured at two stations and gaseous oxidised mercury (RGM) in air is measured at one station. One station has automated continuous measurements of TGM, TPM and RGM in air. Measurement data is reported to EMEP. Contaminants in Swedish offshore sediments ( <a href="https://resource.sgu.se/dokument/publikation/sgurapport/sgurapport202208rapport/s2208-rapport.pdf">https://resource.sgu.se/dokument/publikation/sgurapport/sgurapport202208rapport/s2208-rapport.pdf</a> ) Metals in humans – mercury levels in hair of first-time mothers in central Sweden is measured every year, mercury levels in blood of about 100 7-8 year old children in the south of Sweden is measured every two years and mercury levels in urine of about 100 men and 100 women in age-groups 25-34 and 50-60 in the north of Sweden is planned to be measured every five years. An article describing the monitoring of mercury in hair: Total mercury in hair as biomarker for methylmercury exposure among women in central Sweden – a 23 year long temporal trend study - ScienceDirect <a href="https://www.sciencedirect.com/science/article/pii/S0269749120364010?via%3Dihub">https://www.sciencedirect.com/science/article/pii/S0269749120364010?via%3Dihub</a>	Y	Y
Swiss Centre for Applied Ecotoxicology	Switzerland	Excel file with measured environmental concentrations of total Hg in surface sediments and suspended matter from different types of Swiss water bodies (all types, including lotic and lentic ecosystems). Data collection from publicly available publications,	Y	

		reports, grey literature and additional data not publicly available submitted by cantonal environmental agencies or own campaigns. Data are added to the database if the source was considered reliable even if information of analytical methods was absent. Metadata (year and location, matrix of analysis, limit of quantification, etc.) is included where available.		
OEKOTOX Zentrum Switzerland	Switzerland	Metals in Swiss sediments	N	Y
US Environmental Protection Agency	United States	National Lake Assessment 2017	N	
Australian Institute of Marine Science	Australia	Australian Institute of Marine Science Sediment Sample and Core Database	N	
Marine Ecology Research Centre, School of Environment, Science and Engineering, Southern Cross University	Australia	Mercury contamination from artisanal gold mining on Buru Island, Indonesia		
Charles Darwin University	Australia	The sediment and biota collected in the Finniss River, NT, are part of ongoing PhD project. The area is known for its environmental impacts caused by the former uranium, copper, nickel and lead mining (Rum Jungle Mine).		Y
Centre for Advanced Analytical Chemistry, CSIRO Energy Technology, PMB 7, Bangor, NSW, Australia	Australia	Published paper (Mercury Cycling in Lake Gordon and Lake Pedder, Tasmania (Australia). I: In-lake Processes) and (Mercury Cycling in Lake Gordon and Lake Pedder, Tasmania (Australia). II: Catchment Processes)		
Environment and Climate Change Canada	Canada	Fresh water and sediment sampling is being conducted as a part of the Federal Whales initiative in order to identify concentration and frequency of CoCs. The sampling sites included in this dataset are located primarily in the Fraser River (e.g Fraser River at Hope, Fraser River at New Westminster, Fraser River at Gravesend Reach) and key tributaries to the Fraser River (e.g. Thompson River and Harrison River) and in a more localized watershed that directly discharges to the Salish Sea (e.g. Serpentine River). Sampling began in late 2018 and sampling sites and the CoCs list expanded/modified as the program developed. Please note that there are data gaps due to impacts from COVID-19, forest fires and BC floods. The freshwater sites are sampled multiple times through the year while sediment sites are sampled annually during seasonal low water/low flow periods following the annual freshet, allowing for sediment deposition (accumulation) in the streams before the next freshet period. Data is available in csv file format, data is considered provisional.	Y	
Environment and Climate Change Canada	Canada	I have mercury in fish data from various locations in Canada under NCP, CMP, Oil sands, and investigations around major Hg emitters in western Canada. More limited sediment and possibly water data.	Y	

	China	China Geochemical Baselines	N	
German Federal Environment Agency	Germany	The Environmental Speciman Bank of Germany - top soil and sub soil, organic layer/root network	N	
National Soil Monitoring Network NABO, Agroscope	Switzerland	National Soil Monitoring Network NABO soil sampling	N	
National Soil Monitoring Network NABO, Agroscope	Switzerland	Geochemical soil atlas	N	
US Environmental Protection Agency	United States	National Wetland Condition Assessment 2011: soil sampling	N	
US Environmental Protection Agency	United States	National Wetland Condition Assessment 2016: soil sampling	N	
US Geological Survey	United States	North American Soil Geochemical Landscapes Project: soil sampling	N	
US Environmental Protection Agency	United States	National Coastal Condition Assessment 2015 sediment sampling	N	
Joint Research Centre-European Soil Data Centre (ESDAC)		Land Use and Coverage Area frame Survey (LUCAS): soil sampling	Y	
	Australia	AMBIO synthesis of aggregated soil data	N	
Geosciences and Environment Toulouse	France	A revised pan-Arctic permafrost soil Hg pool based on Western Siberian peat Hg and carbon observations	N	
Australian Government Department of Climate Change, Energy, the Environment and Water	Australia	2500 soil samples from Australia	Y	Y
	Australia	Published paper (Heavy metals in southern and central Queensland canelands)		
	Australia	Published paper (Heavy metals in New South Wales canelands)		
	Australia	ublished paper (Release of Mercury from Biomatter after Burning: Release of Mercury in the Australian Environment by Burning: A Preliminary Investigation of Biomatter and Soils)		
Environmental Executive Agency	Bulgaria	The data are measured values for Hg from the monitoring network - Level I, large-scale monitoring, 16x16 km. In the period 2005-2022 mercury was sampled only in the first depth: 0-10 cm. for non-cultivable soils and 0- 20 cm. for cultivated soils. From 2023 the depths from which the samples are taken are two: 0-10 cm./10-40 cm. for non-cultivable soils and 0-20 cm./20-40 cm. for cultivated soils.	Y	

		Every year, monitoring is carried out in about twenty- five percent of the points /100 points/of the monitoring network. Full monitoring is carried out for four years.		
Geological Survey of Canada	Canada	Soil geochemical, radon and gamma ray spectrometric data from the 2008 and 2009 North American Soil Geochemical Landscapes Project field surveys	N	
Geological Survey of Canada	Canada	Soil geochemical, mineralogical, radon and gamma ray spectrometric data from the 2007 North American soil geochemical landscapes project in New Brunswick, Nova Scotia and Prince Edward Island	N	
Ministry of the Environment, Water, and Ecological Transition of Ecuador.	Ecuador	<p>On July 7, 2021, the signing of the Cooperation Agreement between the United Nations Environment Programme (UNEP), the Sustainable Environmental Investment Fund (FIAS), and the Ministry of the Environment, Water, and Ecological Transition (MAATE) took place for the execution of the project "Strengthening Capacities in the Implementation of the Minamata Convention in Ecuador," hereinafter referred to as the FOCAME Project.</p> <p>In this context, the overall objective of the project includes the identification of sources of mercury emissions and releases, in accordance with Articles 8 and 9 of the Minamata Convention on Mercury. It also involves examining the environmental authorizations granted to these activities recognized as emission and release sources (16 categories such as landfills, wastewater treatment plants, non-ferrous metal smelting, clinker cement production, incinerators, etc.). After obtaining the permits, the work has been complemented by compiling and analyzing environmental monitoring conducted by these industries, which, in some cases, includes the analysis of mercury parameters in water and soil. It is worth noting that there is no regulation in Ecuador obliging the monitoring of mercury in the air, and there are no accredited laboratories in the country capable of doing so. In conclusion, the project has compiled a matrix with the results of mercury monitoring in water and soil from certain industries, analyzing whether these results comply with the permissible limits according to regulations. Furthermore, as part of the project's objectives, to fulfill the product "Strategy to prioritize, manage, and, as appropriate, rehabilitate sites contaminated with mercury," three sites considered potentially contaminated were selected (a landfill, a pool at an oil platform, and an area affected by illegal mining located in a national park). Monitoring of water and soil was conducted at these sites, confirming the presence of mercury, and in some cases, values exceeded permissible limits.</p>	Y	Y
The State Environmental Monitoring	Poland	Monitoring of the chemistry of Poland's arable soils	N	
Polish Geological Institute National Research Institute	Poland	Geochemical atlas of Poland	N	
EMSAGS Project	Suriname	NIMOS/AdeKUS project sampling soil and saprolite in weathering profiles	N	

Department of Civil and Environmental Engineering, University of Energy and Natural Resources, Sunyani, Ghana	Ghana	Published paper (Geospatal distribution Of Hg in Soils of Ghana)	N	
State Key Laboratory of Cryospheric Science, Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences	China	Published paper (Hg in top soils of Central Asia: Uzbekistan, Tajikistan, and Kyrgyzstan)	N	
State Key Laboratory of Environmental Geochemistry, Institute of Geochemistry, Chinese Academy of Sciences	China	Climate and Vegetation As Primary Drivers for Global Mercury Storage in Surface Soil	N	
The Nature Conservancy	Canada/Ecuador	Mercury concentrations in fish, soils, sediments, and water in the Napo Basin, Ecuadorian Amazon	Y	
German Federal Environment Agency	Germany	The Environmental Speciman Bank of Germany - suspended particulate matter	N	
Prefectural University of Kumamoto	Japan	Our data was compiled by reviewing data on mercury published by the Japanese national and local governments.	Y	
Centro de Innovacion Cientifica Amazonica/ Wake Forest University	Peru	Our data cover ASGM sites in Madre de Dios, Southern Peruvian Amazon samples have been taken 6 mining concessions and a few control sites (2 or 3 sites) in Madre de Dios. In 2024 we will take more samples in the North Peruvian Amazon	Y	
Rijkswaterstaat	The Netherlands	all publicly available data	Y	
Australian Government Department of Climate Change, Energy, the Environment and Water	Australia	Database name: Ambient Water Quality Monitoring Program - Mercury Frequency: monthly Description: DEP conducts routine water quality monitoring (1999-present). Mercury is sampled at mid-estuary sites only, in proximity to the Nyrstar smelter. Majority of values are below limit of reporting. Format: Data is hosted in SaaS solution. Tabular data is available (.csv) or access via API. QC: Data has been quality controlled.	Y	Y
Vrije Universiteit Brussel (VUB)	Belgium	The data from our side are the measurement data of Hg and MeHg in the water and sediments of the Belgian Coastal Zone and Scheldt estuary. They are saved in excel files in the contacting persons' hand since they are the full-time professors working at VUB. This is the data of Hg and MeHg concentrations measured during the scientific sampling cruises. They are available by request for scientific communication and also supporting Hg conventions.	Y	Y

Executive Environmental Agency	Bulgaria	Executive Environment Agency (ExEA) is an administration with the Minister of Environment and Water to carry out management, coordination and information functions as regards the control and environmental protection in Bulgaria. It designs and manages the National System for Environmental Monitoring (NASEM) for monitoring and information on the state of environmental components and factors on the complete territory of the Bulgaria. The Agency is a National Reference Centre within the European Environment Agency (EEA). The existing data for Mercury is part of the National System for Environmental Monitoring, Part Priority substances within the meaning of WFD/2000/60 EC. The frequency of observations/sampling of monitoring points for surface fresh waters (rivers, lakes and dams) is variable and depend on the monitoring programs for each year. The design of monitoring programs is in accordance with the River Basin Management Plans and it's prepared from the four River Basin Directorates in Bulgaria. The frequency of observations/sampling of Mercury in groundwater varied from 1 to 3 times per year, depending of the type of monitoring - surveillance or operational. Results for mercury in groundwater are presented in mg/dm <sup>3</sup> , and µg/l for surface waters. Available formats of the monitoring data are Excel. The testing of the samples is carried out by an accredited testing laboratory according to BDS EN ISO/IEC 17025:2018. The laboratory has an implemented quality system, periodically participates in inter- laboratory comparative tests and proficiency tests and carries out regular internal quality control. Data is entered into control charts and trends are monitored	Y	Y
Environment and Climate Change Canada	Canada	CABIN is based on the network of networks approach that promotes inter-agency collaboration and data-sharing to achieve consistent and comparable reporting on fresh water quality and aquatic ecosystem conditions in Canada. The program is maintained by Environment and Climate Change Canada (ECCC) to support the collection, assessment, reporting and distribution of biological monitoring information. A set of nationally standardized CABIN protocols are used for field collection, laboratory work, and analysis of biological monitoring data. A training program is available to certify participants in the standard protocols. For more information see the CABIN webpage ( <a href="https://www.canada.ca/en/environment-climate-change/services/canadian-aquatic-biomonitoring-network.html">https://www.canada.ca/en/environment-climate-change/services/canadian-aquatic-biomonitoring-network.html</a> ) Collectively there are 2146 samples with mercury values which are predominantly from sediments (mostly from the Great Lakes and the St. Lawrence River). Samples may be collected from several different organizations given the collaborative nature of the CABIN program. Samples were taken from open waters (large lakes), small lakes, wadeable streams, and wetlands, throughout the 1991-2019 period. Some sites have 5 or more years of data. The CABIN program has a strong qa/qc component. Data is available in csv format for each CABIN basin.	Y	
Environment and climate change Canada	Canada	Surface water Hg and MMHg concentrations in two Longe Range Transport and Air Pollutant (LRTAP) lakes networks, Nova Scotia, New Brunswick and	Y	

		Quebec, Canada. In addition, Hg concentrations in tree cores and soils around Rouyn-Noranda, Quebec, Canada, other sampling sites to come in the next few years		
Environment and Climate Change Canada	Canada	Water Quality - Annual freshwater quality monitoring data for 20 lakes across Canada. Parameters include total mercury, methylmercury, pH, alkalinity, specific conductance, colour, chlorophyll, nutrients, ions, dissolved inorganic and organic carbon, and total metals. In most years surface samples were collected from three locations on each lake, following nationally standardized protocols. Sampling occurred from 2008 to 2016, with six core lakes sampled throughout the eight-year period. In all years except 2009 samples were collected in the fall, before lake turnover. In 2009 samples were collected after lake turnover. Data indicated as validated, available as csv file.	Y	
Environment and Climate Change Canada	Canada	Water quality and ecosystem health surveillance and monitoring data collected to complete assessments of beneficial use impairments of Areas of Concern (AOCs) and to track the effectiveness of remedial measures and confirm restoration of beneficial uses are included in this dataset. AOCs are geographic areas in the Great Lakes that were identified in the mid-1980s where significant impairment of beneficial uses has occurred as a result of human activities at the local level. Remediating AOCs contributes to the sustainability of local communities and of the Great Lakes region, and is a joint commitment under the Canada-United States Great Lakes Water Quality Agreement (GLWQA). Mercury data (sediment) is available for Toronto Harbour in 2018 at 25 sites sampled once during October. Data is considered provisional, available in csv file. Mercury data (water) is also available for the Detroit River in 2017 at 3 sites sampled monthly between May-October.	Y	
Environment and Climate Change Canada	Canada	Water quality and suspended sediment monitoring and surveillance data collected from the connecting channels of the Great Lakes to determine baseline water quality status, long term trends and spatial distributions, the effectiveness of management actions, determine compliance with sediment quality objectives and identify emerging issues are included in this dataset. The Great Lakes are joined together by river systems known collectively as connecting channels, including the St. Marys River, the St. Clair River (and Lake St. Clair), the Detroit River, the Niagara River, and the St. Lawrence River. Uniquely, the connecting channels originate from the outflow of one or more large, oligotrophic lakes rather than the accumulation of a network of tributaries. Mercury data is available at three sites collectively during the 1975-1999 and 2001-2002 periods. Sampling frequency varies from weekly, bi-weekly, to monthly (gaps may exist). Data are indicated as validated.	Y	
Environment and Climate Change Canada	Canada	Water quality and ecosystem health data collected in the Great Lakes and priority tributaries to determine baseline water quality status, long term trends and spatial distributions, the effectiveness of management actions, determine compliance with water quality objectives and identify emerging issues are included in this dataset. Data are collected as part of lake cruises. Samples are collected along transects at varying depths. Mostly sampled annually, some rotational.	Y	

Environment and Climate Change Canada	Canada	Long-term freshwater quality data from federal and federal-provincial sampling sites throughout Canada's aquatic ecosystems are included in this dataset. Measurements regularly include physical-chemical parameters such as temperature, pH, alkalinity, major ions, nutrients and metals. Collection includes data from active sites, as well as historical sites that have a period of record suitable for trend analysis. Sampling frequencies vary according to monitoring objectives. The number of sites in the network varies slightly from year-to-year, as sites are adjusted according to a risk-based adaptive management framework. Data are considered provisional, available in csv format. Collectively 98 sites contain mercury data throughout the 2000-2023 period.	Y	
Environment and Climate Change Canada	Canada	Expanded Geographic Area (M9, M10, M11a, M12, BI1, RI1, SL1, SL2, QU1 [2013] and M9, M10, M11a, M12, BI1, BU1, BU2, RI1, SL1, SL2, QU1, MC2 [2011-March 2018]) Water quality chemistry data for 17 sites in the lower Athabasca River (LAR), the Peace and Slave rivers, and their tributaries, including measurements of major ions, nutrients, metals (dissolved and total) and organics (including BTEX, cyanide and polycyclic aromatic hydrocarbons (PAHs)). Mercury data is available at 12 sites monitored on a monthly basis. Data identified as quality level 1, defined as "a complete data set of specified quality that consists of research products subjected to quality assurance and quality control checks and data management procedures." Data is in csv file format.	Y	
Environment and Climate Change Canada	Canada	Athabasca River (includes sites M2, M3, M4, M5, M6, M7 [2011-March 2018]) Water quality chemistry data for 17 sites in the lower Athabasca River (LAR), the Peace and Slave rivers, and their tributaries, including measurements of major ions, nutrients, metals (dissolved and total) and organics (including BTEX, cyanide and polycyclic aromatic hydrocarbons (PAHs)). Mercury data is available 6 mainstem sites, most sampled annually. Data includes a mix of discrete, triplicate, composite, and vertical samples taken along transects. Data set identified as quality level 1, defined as "a complete data set of specified quality that consists of research products subjected to quality assurance and quality control checks and data management procedures". Data are in csv format.	Y	
Environment and Climate Change Canada	Canada	Water quality and ecosystem health surveillance and monitoring data collected to complete assessments of beneficial use impairments of Areas of Concern (AOCs) and to track the effectiveness of remedial measures and confirm restoration of beneficial uses are included in this dataset. AOCs are geographic areas in the Great Lakes that were identified in the mid-1980s where significant impairment of beneficial uses has occurred as a result of human activities at the local level. Remediating AOCs contributes to the sustainability of local communities and of the Great Lakes region, and is a joint commitment under the Canada-United States Great Lakes Water Quality Agreement (GLWQA). Mercury data (sediment) is available for Toronto Harbour in 2018 at 25 sites sampled once during October. Data is considered provisional, available in csv file. Mercury data (water) is also available for the Detroit River in 2017 at 3 sites sampled monthly between May-October.	Y	

Ministry of the Environment, Water, and Ecological Transition of Ecuador.	Ecuador	<p>On July 7, 2021, the signing of the Cooperation Agreement between the United Nations Environment Programme (UNEP), the Sustainable Environmental Investment Fund (FIAS), and the Ministry of the Environment, Water, and Ecological Transition (MAATE) took place for the execution of the project "Strengthening Capacities in the Implementation of the Minamata Convention in Ecuador," hereinafter referred to as the FOCAME Project.</p> <p>In this context, the overall objective of the project includes the identification of sources of mercury emissions and releases, in accordance with Articles 8 and 9 of the Minamata Convention on Mercury. It also involves examining the environmental authorizations granted to these activities recognized as emission and release sources (16 categories such as landfills, wastewater treatment plants, non-ferrous metal smelting, clinker cement production, incinerators, etc.). After obtaining the permits, the work has been complemented by compiling and analyzing environmental monitoring conducted by these industries, which, in some cases, includes the analysis of mercury parameters in water and soil. It is worth noting that there is no regulation in Ecuador obliging the monitoring of mercury in the air, and there are no accredited laboratories in the country capable of doing so. In conclusion, the project has compiled a matrix with the results of mercury monitoring in water and soil from certain industries, analyzing whether these results comply with the permissible limits according to regulations. Furthermore, as part of the project's objectives, to fulfill the product "Strategy to prioritize, manage, and, as appropriate, rehabilitate sites contaminated with mercury," three sites considered potentially contaminated were selected (a landfill, a pool at an oil platform, and an area affected by illegal mining located in a national park). Monitoring of water and soil was conducted at these sites, confirming the presence of mercury, and in some cases, values exceeded permissible limits.</p>	Y	Y
Finnish Environment Institute	Finland	Data on Hg levels in Finnish freshwater and marine fish and surface waters.	Y	
Swedish Museum of Natural History	Sweden	Hg water column data for the "other media" group. This is not monitoring data but single datasets from peer-reviewed publications. These data are also part of the data used for evaluation of the ocean models within the MCHgMAP project	Y	
IVL Swedish Environmental Research Institute	Sweden	Measurements of Dissolved Gaseous Mercury in surface water and Gaseous Elemental Mercury, Gaseous Oxidized Mercury and Total Particulate Mercury in air from three Antarctica expeditions during 2010 and 2013.	Y	
Swiss Federal Office for the Environment	Switzerland	National Continuous Monitoring of Watercourses NADUF - Switzerland: ongoing water monitoring	N	
US Environmental Protection Agency / US Geological Survey	United States	National Water Quality Monitoring Council: Aggregated water sampling data	N	
US Environmental Protection Agency	United States	National Lake Assessment 2012	N	
US Environmental Protection Agency	United States	Coastal Condition Assessment 1999-2001/2005-2006	N	

US Environmental Protection Agency	United States	National Coastal Condition Assessment 2010	N	
US Environmental Protection Agency	United States	National Coastal Condition Assessment 2020	N	
		Global meta-analysis based on aggregated freshwater data	N	
	Spain	The interplay between total mercury, methylmercury and dissolved organic matter in fluvial systems: A latitudinal study across Europe	N	
Dirección General de agua (DGA)	Chile	Ongoing water monitoring	N	
School of Environmental Science and Engineering, Tianjin University	China	Impact of dissolved organic matter and environmental factors on methylmercury concentrations across aquatic ecosystems inferred from a global dataset	N	
Agência Nacional de Águas e Saneamento Básico (ANA)	Brazil	Ongoing water and sediment monitoring	N	
Instituto de Hidrología, Meteorología y Estudios Ambientales (IDEAM)	Colombia	Ongoing water and sediment monitoring	N	
	France	Assessment of background concentrations of organometallic compounds in French aquatic environments	N	
Comisión Nacional del Agua (CONAGUA)	Mexico	Ongoing water and sediment monitoring	N	
Autoridad Nacional del Agua	Peru	Ongoing water and sediment monitoring	N	
Dirección Nacional de Calidad y Evaluación Ambiental (DINACEA)	Uruguay	Ongoing water and sediment monitoring	N	
	Peru	Ongoing water, soil and sediment monitoring		
Norwegian Environmental Agency	Norway	<p>The Norwegian Environment Agency is conducting monitoring of mercury in biota in several monitoring programs, including the trend program, Contaminants in coastal waters. Data from these programs are stored in Vannmiljo.no and reports are available at Miljodirektoratet.no (<a href="https://www.miljodirektoratet.no/ansvarsomrader/overvakning-arealplanlegging/miljoovervakning/overvakingsprogrammer/forurensning-og-klimagasser/">https://www.miljodirektoratet.no/ansvarsomrader/overvakning-arealplanlegging/miljoovervakning/overvakingsprogrammer/forurensning-og-klimagasser/</a>). The monitoring program Contaminants in coastal waters investigates contaminants, including mercury, in blue mussel, cod, dogwhelk, common periwinkle, and common eider on a yearly basis. The program started in 1981 and has since been continued.</p> <p>Mercury is also included in the following national monitoring programs:  Environmental pollutants in the terrestrial and urban environment  Environmental contaminants in freshwater food webs  Environmental Contaminants in an Urban Fjord.</p>	Y	

			NA - Published Data Notification Sent	Y
			NA - Published Data Notification Sent	Y
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Archaeology and Natural History, College of Asia and the Pacific, ARC Centre of Excellence for Australian Biodiversity and Heritage	Australia	Hg in tree rings sampled near historic ASGM sites and non-ferrous mining in western Tasmania (n = 1). Individual tree-ring series available using raw Hg data.	N	Y
University of Florence	Italy	Hg in tree rings sampled near mercury mine and geothermal power plant in Tuscany, Italy (n = 3). Individual tree-ring series available, using raw Hg data.	N	Y
Queens University	Canada	Hg in tree rings sampled near historic HgCl <sub>2</sub> application in the Black Forest, Germany (n = 2). Individual tree-ring series available using raw Hg data.	N	Y
University of Toronto	Canada	Hg in tree rings sampled near a historic ASGM site in Yukon Territory, Canada (n = 1). Individual and composite tree-ring series available using raw and corrected Hg data.	N	Y
University of Toronto	Canada	Hg in tree rings sampled in remote, pristine sites in Northwest Territories, Canada (n = 3). Individual and composite tree-ring series available using raw and corrected Hg data.	N	Y
University of Toronto	Canada	Hg in tree rings sampled in remote, pristine sites in Yukon Territory, Canada (n = 3). Individual and composite tree-ring series available using raw and corrected Hg data.	N	Y
University of Toronto	Canada	Hg in tree rings sampled in remote, pristine site in Yukon Territory, Canada (n = 1). Individual and composite tree-ring series available using raw and corrected Hg data.	N	Y
University of Nevada-Reno	United States	Hg in tree rings sampled in pristine sites in the Sierra Nevada, California, United States (n = 2). Individual and composite tree ring series available using raw Hg data.	N	N
University of Nevada-Reno	United States	Hg in tree rings sampled in pristine and impacted sites in the Sierra Nevada, California, United States (n = 9). Composite tree-ring series available using raw Hg data.	N	Y
Chinese Academy of Sciences	China	Hg in tree rings sampled near coal-fired power plant and cement factory in Urumqi Valley, China (n = 3). Individual tree ring series using raw Hg data.	N	Y
University of Virginia	United States	Hg in tree rings sampled in pristine and impacted sites near rayon production plant in Shenandoah National Park, Virginia, United States (n = 3). Individual tree ring series using corrected Hg data. Hg stable isotope data publicly available in Supporting Information.	N	Y
US Environmental Protection Agency / Office of Water	United States of America	Total mercury data from sediment and fish tissue matrices, from hundreds of samples collected between approx. 2004 and 2024 for various studies under the National Aquatic Resource Surveys (NARS) program. "Biota" data is from fish muscle (fillet) tissue and from whole body fish tissue (i.e., the entire fish is ground up and analyzed for mercury).	Y	
			Y	
Instituto Superior Técnico - University of Lisbon	Portugal	Portugal Coastal Areas Frozen soils	Y	

Università Cattolica del Sacro Cuore	Italy	Soil monitoring in Lombardy Region	Y	
RISKNAT Research Group, Department of Earth and Ocean Dynamics, University of Barcelona, 08028 Barcelona, Spain	Spain	70 kyr peat record from Easter Island (27°S) Hg concentration among other geochemical and sedimentological data	Y	
Environment & Climate Change Canada	Canada	Mercury sediment data from various locations along the St. Lawrence River between Montreal Quebec City. Data is derived from several monitoring and surveillance projects between the period of 1987 and 2018, though most of the data is for 2000 onward.	Y	Y
Environment & Climate Change Canada	Canada	Multiple mercury datasets from monitoring and surveillance projects throughout the Atlantic Canada region between 1997-2010. Note: Please be advised that there is limited knowledge of the monitoring objectives and data quality associated with this data set. Any data would be considered provisional.	Y	Y
Environment & Climate Change Canada	Canada	Two Canadian Aquatic Biomonitoring Network (CABIN) studies; one for the Great Lakes and one for Lake of the Woods. The datasets include sediment mercury data as well as data for benthic macroinvertebrate abundance and several freshwater quality parameters.	Y	Y
Environment & Climate Change Canada	Canada	Miscellaneous sediment data from the St. Lawrence River in Canada spanning from 1987 to 2018.		Y
Monash University	Australia	Mercury concentrations from lake sediments (pre-colonisation) from 22 lakes across Australia. In the attached dataset, I have provided the location of the lake, the depth of the sample in the core, the mercury concentration, Aluminium and Titanium concentrations, organic matter content (%). Note that the age of the sediment was obtained from previous studies – which are cited in the original paper.	Y	
University at Albany, State University of New York	United States	A 12.5m sediment core was collected in 2009 from Xing Yun Lake in southwestern China and represents a 3500 year record of carbon, oxygen and nitrogen isotopes, and several elements including Hg. The core chronology was established using radiocarbon dating. Quality control measures, including standard reference materials, have been identified in the text within the publication. Concentrations of elements are given in ppb and core segments were sampled every 2-6 cm (representing ~ 30 to 70 years).	Y	
South China Normal University	China	In this study, based on the analysis of the same set of cores, we present a historical reconstruction of atmospheric Hg deposited in the lake sediments. The aim is to quantify Hg depositional history since early 1800s and identify associated sources. The dataset is a typical shallow lake in this region, Dalonghupao Lake, with a well-dated core of segment depths, Pb210/ Ra226/ Cs137 activities, dates, sedimentation rates, measurements of total	Y	

		carbon, LOI, or total organic carbon, aluminum concentrations, and the Hg concentrations. References are also provided for details.		
University College London	UK	Lake sediment mercury data from two regions. First, Scotland, UK. Here there are 9 lakes each with a radiometrically-dated ( <sup>210</sup> Pb) dated core. Mercury analysis has been undertaken through each core so that there are dating spanning from c.1850 through to 2004 (when the cores were collected). Additional data for these cores including are available including organic content, other trace metals but all measurements are on selected levels only (i.e. not contiguous). Mercury analyses included the use of sediment reference materials and blanks. Data are available in Excel spreadsheets. Second, two co-located cores from an upland lake, Letseng-la Letsie in Lesotho. The cores are a lake core and a peat core taken from close to the lake shore. Data, data formatting and quality control are as for the Scottish data described above. In addition, Al and Ti data are also available. Data are available from 1930s to 2018.	Y	Y
Universidad Nacional Autónoma de México	México	Two sediment cores were analyzed for trace metals to evaluate the temporal changes in sedimentation rates and element fluxes since the construction of the Oviachic reservoir (constructed between 1947- 1952), a reservoir of high social and economic relevance. Other human stressors in the region include large-scale application of agrochemicals and Cu and Mo mines in the Sonora State of Mexico. To describe the concentration trends of the trace metals, sediment geochemistry (grain size, magnetic susceptibility, organic carbon, organic nitrogen) and major/ minor elements (including aluminum and titanium) were also assessed. The cores were dated by measuring the Pb-210 activities and applying the Constant Flux (CF) model. Certified reference materials were used for all analysis and are included in the methods section of the publication.	Y	
Universidad Nacional Autónoma de México	México	Lake sediment cores were analyzed for selected trace metals from three lakes in the Central Mexican Plateau which differ in their degrees of urbanization. To describe the concentration trends of the trace metals, sediment geochemistry (grain size, magnetic susceptibility, organic carbon, calcium carbonate) and major/ minor elements were also assessed. The cores were dated by measuring the Pb-210 activities and applying the Constant Flux (CF) model. Certified reference materials were used for all analysis and are included in the methods section of the publication	Y	
Universidad Nacional Autónoma de México	México	Sediment cores were analyzed for total mercury (THg) to determine the impact of multiple human stressors, including offshore oil production, agriculture and livestock activity, illegal mangrove mining, wetland degradation, habitat fragmentation, coastal erosion, and wastewater discharge. To describe the concentration trends of THg, sediment geochemistry (grain size, magnetic susceptibility, organic carbon, calcium carbonate) and major/ minor elements (including aluminum and titanium) were also assessed. The cores were dated by measuring the Pb-210 activities and applying the Constant Flux (CF) model. Certified reference materials were used for all analysis and are included in the methods section of the publication.	Y	

University College London, Department of Geography	United Kingdom	Hg concentration (Total Hg) data from aquatic plant, fish, lake sediment, soil and lake water sampled 2008-2012 from 9 English lakes. Analysis of total Hg by CV-AFS. Lake sediment core data including radiometric ( <sup>137</sup> Cs, <sup>210</sup> Pb, <sup>226</sup> Ra, <sup>241</sup> Am), geochemical (XRF) and organic content (LOI). Hg and other trace metals measured on water samples (3 monthly) during project period. Excel tables of downcore, multi-variable stratigraphic data. Collated tables of monitoring data and snapshot biota analyses. QC of Hg and other elements with co-measured reference sediments and biotic materials during lab processing and analysis.	Y	
	Switzerland	Cores were collected from 2 lakes in central Switzerland: Lucerne (sampled in 2005, chronological record covers timespan of 178 BC to 2003 AD) and Meidsee (sampled in 2009, record from 11401 BC to 2009 AD). The cores were dated using Cs137, Be7, and C14 radioisotopes. Quality control measures are available within the text (Reference: (Pre-) historic changes in natural and anthropogenic heavy metals deposition inferred from two contrasting Swiss Alpine lakes)	Y	
Universidad Nacional Autónoma de México	México	Sediment cores from 1980-2019	Y	Y
Institute of Geology of the Czech Academy of Science	Czech Republic	Hg in tree rings sampled in pristine and impacted sites in Bohemia, Czech Republic (n = 11). Individual and background composite tree ring series using raw Hg data.	N	Y
Institute of Geology of the Czech Academy of Science	Czech Republic	Hg in tree rings sampled in pristine and impacted sites near the Spolana chemical plant, Czech Republic (n = 4). Composite tree ring series are available using raw Hg data.	N	Y
Institute of Geology of the Czech Academy of Science	Czech Republic	Hg in tree rings sampled in pristine and impacted sites in the Czech Republic (n = 5). Composite tree ring series are available using raw Hg data.	N	Y
Institute of Geology of the Czech Academy of Science	Czech Republic	Hg in tree rings sampled in sites increasingly distant from a chemical plant in Marktredwitz, Bavaria, Germany (n = 5). Composite tree ring series are available using raw Hg data.	N	Y
Institute of Geology of the Czech Academy of Science	Czech Republic	Hg in tree rings sampled in impacted sites, Czech Republic (n = 3). Individual tree ring series are available using raw Hg data.	N	Y
OSPAR Commission		Status and Trend for Heavy Metals in Sediment		
European Soil Data Centre (ESDAC)		Topsoil Hg concentrations ( $\mu\text{g kg}^{-1}$ ) across 26 EU countries estimated by deep neural network – regression kriging. We also provide Mercury stocks and mercury fluxes to main riverbasins and sea outlets. The assessment is based on 21591 LUCAS samples (0-20cm) from 26 European Union countries.	N	

**Biota**

A.3. Affiliation (organization name):	A.4. Country	B.1. Brief description of the data:*	D.3. Intent to Submit Form Received	D.5. Data Already Received Y/N
Australian Institute of Marine Science	Australia	Influence of life history variation and habitat on mercury bioaccumulation in a high-order predatory fish in tropical Australia	N	
The Nature Conservancy	Canada/Ecuador	Mercury concentrations in fish, soils, sediments, and water in the Napo Basin, Ecuadorian Amazon	Y	
Baltic Marine Environment Protection Commission (Helsinki Commission – HELCOM)	Finland	Mercury concentrations in fish and mussels in the Baltic Sea	N	
Rijkswaterstaat	The Netherlands	all publicly available data	Y	Y
US Environmental Protection Agency	United States of America	Great Lakes Fish Monitoring and Surveillance Program	N	
Centro de Innovacion Cientifica Amazonica/ Wake Forest University	Peru	Our data cover ASGM sites in Madre de Dios, Southern Peruvian Amazon samples have been taken 6 mining concessions and a few control sites (2 or 3 sites) in Madre de Dios. In 2024 we will take more samples in the North Peruvian Amazon	Y	Y
US Geological Survey	United States of America	Dragonfly Mercury Project: Ongoing monitoring of dragonfly larvae	N	
Environment and climate change Canada	Canada	Surface water Hg and MMHg concentrations in two Longe Range Transport and Air Pollutant (LRTAP) lakes networks, Nova Scotia, New Brunswick and Quebec, Canada. In addition, Hg concentrations in tree cores and soils around Rouyn-Noranda, Quebec, Canada, other sampling sites to come in the next few years	Y	
Biodiversity Research Institute	United States of America	The Biodiversity Research Institute database spans 37 years and encompasses 60,662 mercury samples from a range of taxa and tissue types. The vast majority of samples are total mercury (THg) and were run at the Biodiversity Research Institute Toxicology Lab on a Direct Mercury Analyzer (DMA). Our lab was awarded a satisfactory grade (the best available grade) in a Mercury Lab proficiency testing organized by the National Institute for Minamata Disease (NIMD) in collaboration with United Nations Environmental Programme, Regional Office for Asia and the Pacific (UNEP-ROAP). Taxa include invertebrates, fish, songbirds, waterbirds, raptors, bats, and furbearers. The data are a compilation of scientific research projects and are currently stored in our BRI Master Database located in MS Access. It is comprised of tables, queries, and forms linked by a primary key field.	Y	Y
Norwegian Institute for Water Research	Norway	Fennoscandian fish database	N	
Charles Darwin University	Australia	The sediment and biota collected in the Finiss River, NT, are part of ongoing PhD project. The area is known for its environmental impacts caused by the former uranium, copper, nickel and lead mining (Rum Jungle Mine).		Y

Environment and Climate Change Canada	Canada	Under the Northern Contaminants program, mercury levels in landlocked Arctic char <i>Salvelinus alpinus</i> have been monitored in 6 lakes from Nunavut over the past 30 years. Results to date show that mercury concentrations in char from most of the study lakes have remained steady or have declined over the past 8 to 10 years, with the exception of North and Small lakes where mercury has increased.	Y	Y
Environment and climate change Canada	Canada	Long term monitoring of Hg in seabirds eggs from the Canadian Arctic, 1975 to 2023	Y	Y
		ARCTOX- Time-series data from ongoing monitoring of birds	N	
Ecotoxicology and Wildlife Health Division, Environment and Climate Change Canada	Canada	Total mercury concentrations in wildlife, including colonial waterbirds, seabirds, raptors (eggs, feathers, blood), mammals including polar bear, river otter, marten, wolverine, walrus (liver, kidney, muscle), freshwater turtles (eggs), frogs (whole bodies), benthic invertebrates	Y	Y
US Geological Survey	United States of America	Western North America Bird Mercury Synthesis: aggregated data on birds	N	
Environment and Climate Change Canada	Canada	Mercury in eggs and muscle from birds, Arctic Canada	NA	Y
National Research Center for Environmental Analysis and Measurement, Beijing, 100029	China	Hg monitoring data from Chinese mainland observation sites in csv format. Gaseous elemental Hg monitoring data has been hourly averaged. Data has been quality controlled.	Y	
Environment and Climate Change Canada	Canada	Through the Northern Contaminants Program, total Hg in ringed seals ( <i>Pusa hispida</i> ) has been monitored at four core sites across the Canadian Arctic (Arviat, Nain, Sachs Harbour, and Resolute Bay) in liver and muscle tissues. Results indicate that Hg concentrations in seal liver are higher than in muscle. Across sites, Hg levels have remained generally stable over time. For Arviat, Hg has been analysed the following years in muscle and liver tissues: 1992,1998, 2003, 2005-2013, 2014-2021. For Nain, Hg has been analysed the following years in muscle and liver tissues: 1997,1998, 2005, 2006 (muscle only), 2012-2020. For Sachs Harbour, Hg in muscle and liver were analysed the following years: 1987, 1988, 2001, 2003 (liver only), 2005-2007, 2010-2020 (only muscle in 2017, not liver). For Resolute Bay, Hg was analyzed in liver and muscle the following years: 1993, 2000 (liver only), 2004-2019, 2021 (liver only). Analyses for 2022 are on-going.	Y	Y
	Japan	Marine Environmental Monitoring Survey: data on Hg in benthic communities	N	
Environment and Climate Change Canada	Canada	I have mercury in fish data from various locations in Canada under NCP, CMP, Oil sands, and investigations around major Hg emitters in western Canada. More limited sediment and possibly water data.	Y	
Gamberg Consulting (working under the	Canada	1. Arctic caribou – total mercury in kidneys, and a smaller number of samples for liver and muscle; a few samples for brain and bone marrow. A long temporal trend of mercury in muscle from two caribou	Y	Y

Northern Contaminants Program)		<p>herds and sporadic data from other herds in other locations from the Canadian Arctic.</p> <p>2. Arctic fish – a long temporal trend of total mercury in muscle from lake trout in two Yukon lakes and sporadic data from other fish in other locations from the Canadian Arctic.</p> <p>3. Arctic wildlife – total mercury in kidney, liver, muscle of muskox (NWT); moose (Yukon), walrus (Nunavut). Note: walrus liver, muscle, blubber.</p> <p>4. Vegetation – total and methyl mercury in 9 species of plants including lichens, mosses, evergreen shrubs; total and methyl mercury in lichens, mushrooms and seaweed</p>		
Federal Office for the Environment	Switzerland	<p>The data is in µg/g and describes the Hg concentration measured in dried pleurocarpous mosses (<i>Hypnum cupressiforme</i> and <i>Pleurozium schreberi</i>).</p> <p>The sampling takes place every five years (since 1990). Data for Hg on sampling site level is available for 1990, 2000, 2005, 2010, 2015, 2020 (73 sites have data for all 6 sampling periods) For 1995 only mean values for each of the geographic regions is available (obtained from archive samples). The samples are collected in background areas in Switzerland at defined sampling sites. The collection site is always an open area such as a forest clearing, a bog or a heathland. Each sample consists of 5 sub samples distributed equally within the sampling site. All subsamples contribute to the analysed as well as possible to the same extent.</p> <p>For the analyses only the last three years of growth of each moss sprout is used (approx. 2 g of dry moss material per side). Thus, the concentrations measured indicates a 3-year- mean. The prepared samples were analysed using AMA or DMA. For more details on methods see national report indicated below. Quality control of the analyses consists of</p> <ul style="list-style-type: none"> <li>- duplicate measures (=same sample analysed twice)</li> <li>- replicate samples (=two separate samples of one sampling site of the current sampling period)</li> <li>- archive samples (=samples from previous sampling period)</li> <li>- suitable reference material. The data was checked for plausibility.</li> </ul> <p>For all the sampling sites meta data such as coordinates, elevation, vegetation, topography and land use are available. Further, sampling date and if needed other additional information has been collected (e.g. close distance to a road). The data is stored in a FileMaker database (each sampling site has an own date entry for each year of sampling).</p>	Y	
Australian Government Department of Climate Change, Energy, the Environment and Water	Australia	A review of mercury concentrations in Australian marine mammals, birds and turtles	Y	
Australian Government Department of Climate Change, Energy, the Environment and Water	Australia	Several independent research studies have been conducted to evaluate mercury levels in fish (barramundi ( <i>Lates calcarifer</i> ), sand flathead, other) collected from Australian estuaries and near shore coastal ecosystems with the focus on understanding health implications, environmental processes and anthropogenic impacts (Butler et al., 2022; Gagnon et al., 2016).	Y	Y
Australian Government Department of Climate Change, Energy, the Environment and Water	Australia	<p>Database name: Mercury levels in flathead (<i>Platycephalus bassensis</i>) in the Derwent Estuary</p> <p>Description: 10+ legal size flathead sampled from seven Derwent Estuary sites and one reference site.</p> <p>Frequency: Monitoring is biennial (October – November).</p>	Y	Y

		Format: Tabular data stored as .csv QC: Data has been quality controlled in R		
Australian Government Department of Climate Change, Energy, the Environment and Water	Australia	Database name: Metals in wild shellfish, Derwent Estuary. Description 32 oysters deployed to cages in surface waters at 9 Derwent Estuary sites and one reference site. At 3 sites oysters deployed to surface, mid and bottom waters. Frequency: annual Format: Tabular data stored as .csv QC: Data has been quality controlled	Y	Y
Australian Government Department of Climate Change, Energy, the Environment and Water	Australia	Database name: Metals in deployed oysters, Derwent Estuary. Description 32 oysters deployed to cages in surface waters at 9 Derwent Estuary sites and one reference site. At 3 sites oysters deployed to surface, mid and bottom waters. Frequency: annual Format: Tabular data stored as .csv QC: Data has been quality controlled	Y	
Australian Government Department of Climate Change, Energy, the Environment and Water	Australia	Database name: Mercury levels in flathead ( <i>Platycephalus bassensis</i> ) in the Derwent Estuary Description: 10+ legal size flathead sampled from seven Derwent Estuary sites and one reference site. Frequency: Monitoring is biennial (October – November). Format: Tabular data stored as .csv QC: Data has been quality controlled in R Database name: Metals in wild oysters and mussels, Derwent Estuary. Description 20 oysters and/or mussels collected from 55 sites throughout the Derwent Estuary. Frequency: Triennial Format: Tabular data stored as .csv QC: Data has been quality controlled	Y	
Australian Government Department of Climate Change, Energy, the Environment and Water	Australia	Database name: Mercury in wild caught fish, Derwent Estuary. Format: Tabular data stored as .csv Frequency: Monitoring is intermittent. This is not a time-series dataset. There are 3 data points: 2007, 2011 and 2020. Species: Abalone, Australian salmon, bream, cod, crayfish, short-finned eel, yellow-eyed mullet, short-spined sea urchin, brown trout, Tasmanian whitebait and school whiting. QC: Data has been quality controlled	Y	
Ministry of the Environment	Japan	Total mercury in marine biota. QA/QC is performed according to the national monitoring guideline (e.g. recovery test, reproducibility test).	Y	Y
		DCSMM ( Directive Cadre "Stratégie pour le Milieu Marin" (DCSMM)): Ongoing monitoring of gulls, shearwaters, shags and gannets	N	
Swedish Environmental Protection Agency	Sweden	The Swedish environmental monitoring of hazardous substances includes monitoring of mercury in air and precipitation, lakes, marine areas, offshore sediments, mosses and humans. Some data series started in the 1960's and most are at least 40 years. The following monitoring programs include mercury: Metals and organic pollutants in marine biota - herring, cod, perch, seaweed brine, scrub, dab, blue mussel and guillemot egg (FULLTEXT01.pdf (diva-portal.org)).	Y	

		<p>Metals and organic pollutants in fresh water biota – char, pike and perch (<a href="http://naturvardsverket.diva-portal.org/smash/get/diva2:1476460/FULLTEXT01.pdf">http://naturvardsverket.diva-portal.org/smash/get/diva2:1476460/FULLTEXT01.pdf</a>)</p> <p>Metals in mosses – Has been done every fifth year since 1975. Since the mosses almost exclusively take up metals from the air, the method gives a good picture of the deposition. (In Swedish with English summary <a href="https://www.ivl.se/download/18.76c6e08e1573302315f20e/1474381195136/C204.pdf">https://www.ivl.se/download/18.76c6e08e1573302315f20e/1474381195136/C204.pdf</a>)</p> <p>Metals in air and precipitation – total gaseous mercury (TGM) in air and total mercury in precipitation is measured at four stations, total particulate mercury (TPM) in air is measured at two stations and gaseous oxidised mercury (RGM) in air is measured at one station. One station has automated continuous measurements of TGM, TPM and RGM in air. Measurement data is reported to EMEP.</p> <p>Contaminants in Swedish offshore sediments (<a href="https://resource.sgu.se/dokument/publikation/sgurapport/sgurapport202208rapport/s2208-rapport.pdf">https://resource.sgu.se/dokument/publikation/sgurapport/sgurapport202208rapport/s2208-rapport.pdf</a>)</p> <p>Metals in humans – mercury levels in hair of first-time mothers in central Sweden is measured every year, mercury levels in blood of about 100 7-8 year old children in the south of Sweden is measured every two years and mercury levels in urine of about 100 men and 100 women in age-groups 25-34 and 50-60 in the north of Sweden is planned to be measured every five years. An article describing the monitoring of mercury in hair: Total mercury in hair as biomarker for methylmercury exposure among women in central Sweden– a 23 year long temporal trend study - ScienceDirect <a href="https://www.sciencedirect.com/science/article/pii/S0269749120364010?via%3Dihub">https://www.sciencedirect.com/science/article/pii/S0269749120364010?via%3Dihub</a></p>		
Swiss Ornithological Institute	Switzerland	Measures of Hg in feathers of dippers ( <i>Cinclus cinclus</i> ), which is a small passerine bird found along rivers and lakeshores in Europe. Every year since 2016, feathers are collected for > 350 adult birds and, so far, we measured Hg in > 300 individuals. We are planning to extend the analyses to > 600 measures in the 2 years to come. Hg was measured using a Direct Mercury Analyser (Milestone DMA-80 evo). Individual dipper feathers were weighed, homogenized, and divided equally into three parts to create triplicates for measuring. The results of the triplicates were then averaged to get the mean Hg per individual. A certified reference material (CRM) of Bovine Liver (NIST 1577c) was run every ten samples. The CRM percent recovery was 102.2%, with a mean concentration of 5.479 ± 0.180 mg/kg. The blanks analysed returned a level of detection (LOD) of 0.065 ug/L. Data are stored in excel files, with info for each sample on individual ring, day of sampling and location.	Y	Y
Swiss Ornithological Institute	Switzerland	Ongoing alpine swift monitoring program	N	
Environment and Climate Change Canada	Canada	Mercury concentration in eggs of three bird species: 1-temporal trends in eggs of Northern Gannets (1969-2019), 2- temporal trends in eggs of Great-blue Heron (1991-2022), and 3- spatial trends in eggs of Herring Gull (2022-2023).		Y
Environment and Climate change Canada	Canada	THg in polar bears		Y
Environment and Climate Change Canada	Canada	Total Thg in gull and starling eggs across Canada, 1974 to 2023.	NA	Y

Arctic Monitoring and Assessment Programme (AMAP)	International (Arctic region)	Data on mercury in biota compiled by AMAP to support its assessments of mercury in the Arctic (most recent assessment was for 2021). QA/QC of data submitted to AMAP data centres is the responsibility of data providers. Data used in AMAP assessments have been qa/qc'd for AMAP use. Most laboratories providing data to AMAP are participating in relevant mercury inter- calibration exercises/inter-laboratory performance studies (some organized by AMAP). Time-series data are generally based on annual sampling.	Y	Y
University of Waterloo	Canada	Following approvals from local and regional organizations, data on total mercury and methylmercury in multiple tissues from fish, birds, terrestrial mammals and marine mammals sampled in the Inuvialuit Settlement Region, NWT, Canada.	Y	Y
Norwegian Environmental Agency	Norway	The Norwegian Environment Agency is conducting monitoring of mercury in biota in several monitoring programs, including the trend program, Contaminants in coastal waters. Data from these programs are stored in Vannmiljo.no and reports are available at Miljodirektoratet.no ( <a href="https://www.miljodirektoratet.no/ansvarsomrader/overvakning-arealplanlegging/miljoovervakning/overvaksingsprogrammer/forurensning-og-klimagasser/">https://www.miljodirektoratet.no/ansvarsomrader/overvakning-arealplanlegging/miljoovervakning/overvaksingsprogrammer/forurensning-og-klimagasser/</a> ). The monitoring program Contaminants in coastal waters investigates contaminants, including mercury, in blue mussel, cod, dogwhelk, common periwinkle, and common eider on a yearly basis. The program started in 1981 and has since been continued. Mercury is also included in the following national monitoring programs: Environmental pollutants in the terrestrial and urban environment Environmental contaminants in freshwater food webs Environmental Contaminants in an Urban Fjord.	Y	
Finnish Environment Institute	Finland	Data on Hg levels in Finnish freshwater and marine fish and surface waters.	Y	Y
Environment and Climate Change Canada	Canada	Annual fish monitoring data for 20 lakes across Canada. Collection season was standardized to provide temporal comparability within each lake. In most lakes, fishing occurred in the fall. Predator fish were limited to trout, pike or walleye, to facilitate spatial comparisons. Ten to twenty top predator fish were targeted per lake. In cases where population/conservation concerns existed, only ten fish were taken. Prey fish were also collected; ten to twenty individuals of a single species that the top predator was known to eat. A range of fish sizes were targeted wherever possible. Physical parameters recorded include species, length, weight, age and sex. Predator fish (fillet and/or whole body samples) and prey fish (whole body samples only) were analysed for mercury, metals, and stable isotopes. Mix of validated and provisional data, available as csv file.	Y	
Environment and Climate Change Canada	Canada	The Fish Contaminants Monitoring Program (FCMP) was initiated in 1976. The objective is to collect a variety of biological samples in freshwater environments for the purpose of determining ecosystem contaminant levels. Environment and Climate Change Canada (ECCC) collects biological samples from a number of lakes and rivers across Canada in support of federally mandated programs. ECCC has collected fish and invertebrates from the Great Lakes since 1976 in support of the Great Lakes Water Quality Agreement (GLWQA). More recently, samples have been collected nationally to support Canada's Chemicals Management Plan and the Clean Air Regulatory Agenda. The primary indicator species for the FCMP are top predator fish such as Lake trout ( <i>Salvelinus namaycush</i> ), and walleye ( <i>Sander vitreus</i> ) which integrate contaminants in the pelagic ecosystem over space and time. In the Great Lakes, forage fish and other components of the aquatic profundal	Y	

		<p>foodweb such as Mysis are also collected to help characterize contaminant flow in the foodweb. Whole specimens are homogenized, including gut contents, and stored at -80 °C under controlled conditions. Specimens are analyzed for chemicals of concern under the GLWQA and the CMP (trace metals, PCBs, PBDEs, PFAS ect). In addition, we collect biological data on the fish including sex, age, size and stable isotopes of nitrogen and carbon where possible.</p> <p>All specimens received and/or collected are registered and assigned with successive and unique identification numbers (CSP number). A secure relational database maintains all biological data (length, age, etc.) associated with each specimen number as well as data with regard to location, collection methods, storage and the results of all chemical analyses that have been performed on the specimen.</p> <p>Data is considered provisional, available in csv or excel file format.</p>		
Guangxi Normal University	China	Feather Total Hg data from shorebirds along EAA flyway.	N	Y
Prefectural University of Kumamoto	Japan	Our data was compiled by reviewing data on mercury published by the Japanese national and local governments.	Y	
NILU	Norway	Mercury data hosted in EBAS@nilu.no	Y	
FAO and Institute of Marine Research of Bergen, Norway	Norway	Ecosystem Approach to Fisheries- Nansen Programme	N	
German Federal Environmental Agency	Germany	The Environmental Speciman Bank of Germany - Hg measurements in spruce, pine, poplar and beech	N	
ICP Vegetation Programme Coordination Center		Aggregated data on moss samples	N	
US Environmental Protection Agency	United States of America	National Coastal Condition Assessment: mercury concentration in fish	N	
US Environmental Protection Agency / Office of Water	United States of America	Total mercury data from sediment and fish tissue matrices, from hundreds of samples collected between approx. 2004 and 2024 for various studies under the National Aquatic Resource Surveys (NARS) program. "Biota" data is from fish muscle (fillet) tissue and from whole body fish tissue (i.e., the entire fish is ground up and analyzed for mercury).	Y	
World Health Organization		World Health Organization (WHO) Global Environment Monitoring System - Food Contamination Monitoring and Assessment Programme, GEMS/Food; data in mercury in fish	N	
OSPAR Commission		Status and Trend for Heavy Metals (Mercury, Cadmium and Lead) in Fish, Shellfish and Sediment	N	Y
ICP Waters Programme	Norway	Data on mercury in freshwater fish	N	
European Monitoring and Evaluation Programme	Norway	Focused on transmission of air pollutants, unclear if data on biota availabl	N	
Umweltprobenbank	Germany	Ongoing monitoring of biota, including zebra mussels, blue mussel, seaweed (Bladder wrack), Eelpout, Bream, Herring Gull, Roe Deer and Earthworms	N	

Guangxi Normal University	China	Biota	Y	
IRD	France	THg data in tuna muscle	Y	
Environment & Climate Change Canada	Canada	Two Canadian Aquatic Biomonitoring Network (CABIN) studies; one for the Great Lakes and one for Lake of the Woods. The datasets include sediment mercury data as well as data for benthic macroinvertebrate abundance and several freshwater quality parameters.	Y	Y
Finnish environment institute	Finland	Finnish monitoring data on Hg in fish	Y	
University College London, Department of Geography	United Kingdom	Hg concentration (Total Hg) data from aquatic plant, fish, lake sediment, soil and lake water sampled 2008-2012 from 9 English lakes. Analysis of total Hg by CV-AFS. Lake sediment core data including radiometric (137Cs, 210Pb, 226Ra, 241Am), geochemical (XRF) and organic content (LOI). Hg and other trace metals measured on water samples (3 monthly) during project period. Excel tables of downcore, multi-variable stratigraphic data. Collated tables of monitoring data and snapshot biota analyses. QC of Hg and other elements with co-measured reference sediments and biotic materials during lab processing and analysis.	Y	Y
US Environmental Protection Agency / Office of Water	United States of America	Fish fillet tissue data for mercury, collected from rivers, lakes and the Great Lakes, from 2008 through 2022.	Y	Y
Uconn	United States of America	Data were pulled from NOAA's NCCOS National Status and Trends page ( <a href="https://products.coastalscience.noaa.gov/collections/ltmonitoring/nsandt/default.aspx">https://products.coastalscience.noaa.gov/collections/ltmonitoring/nsandt/default.aspx</a> ), queried 01/27/2025. Mercury data for mussel and oyster samples for years 1986-2012. Each row is for a specific site, year, and species combination, all n=1. No aggregating were required. Metadata re: QA/QC are not available with data pulls but might be found in NOAA technical reports.		Y
UConn	United States of America	These data are averages of total mercury and methyl mercury concentrations in whole oyster tissue from four sites in the CT portion of the Long Island Sound, USA. Data was collected 8 months/year for two years (2022-2023).		Y
		Data on Hg in tuna from MERTOx / Pacific Fund VACOPA / IMBeR-CLIOTOP		Y
NOAA	United States of America	All Hg data in tissues (primarily mussels and oysters) from 1986 - 2021.		
Centro de Innovacion Cientifica Amazonica/ Wake Forest University	Peru	Data base of Hg levels in fish muscle (~1400 individuals) collected in Madre de Dios, Peru in different water bodies mining ponds, oxbowlakes, river, creek with ancillary data such as, size, trophic levels, water Ph. etc	Y	Y
Biodiversity Research Institute	United States of America	Global Biotic Mercury Synthesis (GBMS) database	Y	
IFREMER		Hg concentration in fish (muscle) and cephalopods		Y

Human biomonitoring

A.3. Affiliation (organization name):	A.4. Country	B.1. Brief description of the data:*	D.3. Intent to Submit Form Received	D.5. Data Already Received Y/N
University of Waterloo	Canada	In subarctic and Arctic locations of the Northwest Territories and Yukon, Canada, elevated levels of Hg have been measured in some fish species from some local lakes and rivers, prompting concerns from Indigenous northern communities about Hg exposure. To address these community concern, a community-engaged human biomonitoring project was implemented in 10 First Nations communities of the Northwest Territories and Yukon, including those in the Dehcho and Sahtú regions and Old Crow, Yukon. In total, over 500 individuals from these communities provided blood, hair, and/or urine samples for the measurement of mercury exposure biomarkers between 2017 and 2019. Concurrently, survey data, including Food Frequency Questionnaires, as collected from participants.	Y	N
Centro de Innovacion Cientifica Amazonica/ Wake Forest University	Peru	Our data cover ASGM sites in Madre de Dios, Southern Peruvian Amazon samples have been taken 6 mining concessions and a few control sites (2 or 3 sites) in Madre de Dios. In 2024 we will take more samples in the North Peruvian Amazon	Y	N
Ministry of the Environment	Japan	Total mercury in human blood from an epidemic survey in Japan. QA/QC is planned in the project plan and performed according to this plan (e.g., recovery test, blank analysis, reproducibility, reference material analysis).	Y	Y
Environmental Quality Protection Board	Palau	The survey aimed to assess the mercury exposure risks for the citizens in Palau, particularly methylmercury intake from fish and shellfish. The human hair was sampled for the target population. The target participants were the general public in Palau who were regularly exposed mercury by consuming fish as their staple diet. The survey was conducted by voluntary surveyors for collecting hair samples and questionnaires. Hands-on training was provided to familiarise the process and skills for hair sampling survey in line with WHO guidelines. The sampling was, then, conducted in April – May 2023. All collected samples were shipped to the laboratory at Asian Institute of Technology, Thailand to analyse total mercury in hair. Questionnaire survey asked participants' residential zone, age, gender, occupation, fish consumption, and current health problems. The survey plan was submitted to Palau Institutional Review Board for the ethical clearance which was granted prior to the survey. In order to protect personal information, the raw data will not be shared to other parties. Only statistical information was published. To check the quality of the analysis, following QA/QC procedures were in place: travel blank, duplicate analysis, and random check. Two (2) travel blanks were prepared for ensuring no contamination via carrying or shipping of samples from Palau to Thailand, one each for two batches of sample deliveries. All samples were analysed at least twice to ensure no mechanical trouble during the analytical operation. In addition, 10 % of the total samples were randomly selected and double checked to ensure no bias in the quality control process. The random selection was proportionally done to the zoning of the sample collection. A certified reference material was also included to examine the validity of the analysis results. Finally, the average values of multiple analysis were reported.	Y	N

Health Canada	Canada	Data on concentrations of mercury measured in Canadians over the past decade, taken from the Canadian Health Measures Survey (CHMS) and the Maternal Infant Research on Environmental Chemicals (MIREC) study.	Y	Y
Centre de recherche du CHU de Québec – Université Laval	Canada	Between 1992 and 2017, a total of 12 studies assessing pregnant women exposure to mercury (using whole blood) we realized in collaboration with Inuit within the 14 communities in Nunavik. Exposure to several other POPs and biomarkers of nutritional status (from traditional food) as well as food consumption frequencies were also surveyed, particularly in more recent studies. Three Nunavik Inuit Health Surveys involving Inuit adults (1992, 2004 and 2017) and also Inuit youth (2017) were realized in collaboration with local and regional organization of the 14 communities of Nunavik and assessed exposure to mercury (using whole blood). Exposure to several other POPs, biomarkers of nutritional status (from traditional food), food consumption frequencies and several physical and mental health issues were also surveyed.	Y	N
Unisanté – Center for Primary Care and Public Health, University of Lausanne	Switzerland	The Swiss Kidney Project on Genes in Hypertension (SKIPOGH) is a publicly funded multicentric population-based cohort including 1128 human adults aged 18 years and over residing in the cantons of Vaud, Geneva and Bern. Exposure to heavy metals, including mercury in blood and urine have been measured using ICP-MS to explore the link with renal function and blood pressure. Baseline examination data were collected in 2009-2012, including mercury levels.	Y	N
Federal Office of Public Health	Switzerland	Human biomonitoring measurements in participants from a representative sample of the general population from two Swiss cantons Bern and Waadt. Full blood analysed with multi-element method with ICP-MS (total mercury, no speciation)	Y	N
Swedish Environmental Protection Agency	Sweden	The Swedish environmental monitoring of hazardous substances includes monitoring of mercury in air and precipitation, lakes, marine areas, offshore sediments, mosses and humans. Some data series started in the 1960's and most are at least 40 years. The following monitoring programs include mercury: Metals and organic pollutants in marine biota - herring, cod, perch, seaweed brine, scrub, dab, blue mussel and guillemot egg (FULLTEXT01.pdf (diva-portal.org)). Metals and organic pollutants in fresh water biota – char, pike and perch (http://naturvardsverket.diva-portal.org/smash/get/diva2:1476460/FULLTEXT01.pdf) Metals in mosses – Has been done every fifth year since 1975. Since the mosses almost exclusively take up metals from the air, the method gives a good picture of the deposition. (In Swedish with English summary https://www.ivl.se/download/18.76c6e08e1573302315f20e/1474381195136/C204.pdf) Metals in air and precipitation – total gaseous mercury (TGM) in air and total mercury in precipitation is measured at four stations, total particulate mercury (TPM) in air is measured at two stations and gaseous oxidised mercury (RGM) in air is measured at one station. One station has automated continuous measurements of TGM, TPM and RGM in air. Measurement data is reported to EMEP. Contaminants in Swedish offshore sediments (https://resource.sgu.se/dokument/publikation/sgurapport/sgurapport202208rapport/s2208-rapport.pdf) Metals in humans – mercury levels in hair of first-time mothers in central Sweden is measured every year, mercury levels in blood of about 100 7-8 year old children in the south of Sweden is measured every two years and mercury levels in urine of about 100 men and 100 women in age-	Y	N

		groups 25-34 and 50-60 in the north of Sweden is planned to be measured every five years. An article describing the monitoring of mercury in hair: Total mercury in hair as biomarker for methylmercury exposure among women in central Sweden – a 23 year long temporal trend study - ScienceDirect <a href="https://www.sciencedirect.com/science/article/pii/S0269749120364010?via%3Dihub">https://www.sciencedirect.com/science/article/pii/S0269749120364010?via%3Dihub</a>		
Arctic Monitoring and Assessment Programme (AMAP)	International (Arctic region)	Data on mercury in human media compiled by AMAP to support its assessments of mercury in the Arctic and Human health in the Arctic (most recent assessments were for 2021). Data used in AMAP assessments have been qa/qc'd for AMAP use. Most laboratories providing data to AMAP are participating in relevant mercury inter-calibration exercises/inter-laboratory performance studies (some organized by AMAP). Time-series data are generally based on annual sampling.	Y	Y
Norwegian Environmental Agency	Norway	Information on dietary mercury intake in combination with blood total mercury concentration is available from 3590 pregnant women participating in the Norwegian Mother, Father and Child Cohort Study (MoBa). This is a prospective population-based pregnancy cohort conducted by the Norwegian Institute of Public Health (NIPH) (Magnus et al., 2016).	Y	N
Prefectural University of Kumamoto	Japan	Our data was compiled by reviewing data on mercury published by the Japanese national and local governments.	Y	N
Brazilian Institute of the Environment and Renewable Natural Resources	Brazil	Hair mercury is associated with dyslipidemia and cardiovascular risk: An anthropometric, biochemical and genetic cross-sectional study of Amazonian vulnerable populations.		Y
Brazilian Institute of the Environment and Renewable Natural Resources	Brazil	Large-scale projects in the amazon and human exposure to mercury: The case-study of the Tucuruí Dam		Y
Brazilian Institute of the Environment and Renewable Natural Resources	Brazil	Assessing mercury intoxication in isolated/remote populations: Increased T S100B mRNA in blood in exposed riverine inhabitants of the Amazon		Y
National Public Health Surveillance Laboratory	Lithuania	Human biomonitoring data	Y	Y
Brazilian Institute of the Environment and Renewable Natural Resources	Brazil	Genetic Susceptibility to Neurodegeneration in Amazon: Apolipoprotein E Genotyping in Vulnerable Populations Exposed to Mercury		Y
Brazilian Institute of the Environment and Renewable Natural Resources	Brazil	Mercury exposure and antioxidant defenses in women: A comparative study in the Amazon		Y
Brazilian Institute of the Environment and Renewable Natural Resources	Brazil	Mercury pollution and childhood in Amazon riverside villages		Y

University Hospital, LMU Munich	Germany	Biomonitoring data (urine, blood) from ASGM areas in Zimbabwe	Y	
Deputy Head of Chemical Testing Department in National Public Health Surveillance Laboratory	Lithuania	2020 - 2021 National Public Health Surveillance Laboratory along with Lithuanian University of Health Sciences carried a cross-sectional survey "Concentrations of PAHs, dioxins/furans, PCBs, and the metals/metalloids in biological media of people with different exposures in Lithuania (225 individuals randomly selected from 5 cities and their regions; age: 18+ years; biological media: blood, plasma, and urine).		
Brazilian Institute of the Environment and Renewable Natural Resources	Brazil	Genetic Polymorphism of Delta Aminolevulinic Acid Dehydratase (ALAD) Gene and Symptoms of Chronic Mercury Exposure in Munduruku Indigenous Children within the Brazilian Amazon		Y
Brazilian Institute of the Environment and Renewable Natural Resources	Brazil	Impacts of the Goldmining and Chronic Methylmercury Exposure on the Good-Living and Mental Health of Munduruku Native Communities in the Amazon Basin		Y
Brazilian Institute of the Environment and Renewable Natural Resources	Brazil	Mercury Exposure in Munduruku Indigenous Communities from Brazilian Amazon: Methodological Background and an Overview of the Principal Results		Y