

## **The Scars of Mercury**

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Website: <http://scarsofmercury.com> (under construction)

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### **Upcoming Screenings**

**Toronto: Friday, October 23, 2009**

10<sup>th</sup> Planet in Focus International Environmental Film Festival

Innis Town Hall

5:00 p.m.

For film festival tickets, see their website: <http://www.planetinfocus.org>

**Winnipeg: Tuesday, October 27, 2009**

Indigenous Sovereignty Week

Eckhardt-Gramatte Hall, University of Winnipeg

7:00 p.m.

### **Synopsis**

The documentary film (91 minutes), "The Scars of Mercury" explores some of the processes of destruction of the Indigenous way of life, faced by Grassy Narrows First Nation over the decades. These include educational, economic and environmental racism, including the impacts of the residential school system, relocation of the community, treaty rights violations with a focus on the quota system for hunting and trapping, mercury poisoning of their other key food source - fish - and clear-cutting of trees on off-reserve treaty lands. The result has been severe economic deprivation, extensive environmental damage, a range of health problems, and loss of key food sources that supplement limited incomes.

An in-depth focus on the issue of mercury poisoning explores the impacts on humans, resulting from low-level exposure to methyl-mercury over a 30-year period. Indigenous residents have often been told that their neurological symptoms are the result of substance abuse, particularly alcoholism. Doctors say it is very difficult to distinguish whether symptoms are from substance abuse, diabetes or mercury.

A paper mill in Dryden, in northwestern Ontario, Canada, started discharging inorganic mercury into the English-Wabigoon river system in 1962. It was assumed that the river water would dilute it. Instead, due to bioaccumulation, the mercury levels in fish increased in a more toxic form, methyl-mercury. Fish were one of the primary food sources of the local First Nations communities, along with trapping. By late 1969, fish from the river system had levels of methyl-mercury more than 40 times higher than the safety level. Indigenous residents along the river continued to eat fish. Methyl-mercury causes serious damage to the brain and central nervous system.

In 1975, Dr. Masazumi Harada, a mercury poisoning specialist from Japan, conducted examinations on residents along the river, in Grassy Narrows First Nation and Wabaseemoong Independent Nations (Whitedog). He found that mercury levels of the majority of residents were under the safety level and the symptoms of mercury poisoning were relatively mild.

The mill stopped discharging mercury completely in 1975. The methyl-mercury monitoring program by the Canadian government indicated mercury levels of the residents, primarily based on blood and hair samples, were continuing to decrease. The Canadian government concluded that the direct risks to the health of adults due to methyl-mercury are minimal and denied the occurrence of Minamata Disease in 1979. Minamata Disease was first discovered in local cats, fisherman, and their families, who ate fish from Minamata Bay in Japan. Pregnant women passed the disease to their children, in utero. The fish were poisoned by mercury dumped into the bay by a local factory, Chisso Corporation.

Almost three decades later, in 2002 and 2004, Dr. Harada examined the First Nations residents again. Their symptoms had progressed from mild to worse, even though their mercury levels had remained under the safety level. Is the safety level reliable? Through his 30-year study, Dr. Harada has concluded that not all of the symptoms have to be present, for a diagnosis of the disease. People who have been exposed to methyl-mercury in small doses over an extended period, particularly if their exposure was high at one point in time, may begin to demonstrate signs of the disease. It is important to recognize these signs and address the long-term health of the patient.

The documentary provides a better understanding of how processes of educational, economic and environmental racism have negatively impacted the Indigenous way of life. As well, it explores an issue of worldwide importance, that exposure to low levels of mercury over extended periods of time could be hazardous to our health.

## **Credits**

Written, Directed, Filmed and Edited by: Tadashi Orui

Produced by: Tadashi Orui, Thor Aitkenhead, Sheri Blake

Original Music by: Dan Simpson, David Brophy, Shelagh Pizey-Allen

Narrated by: Sheri Blake

Voiceover by: David Brophy (Dr. Harada), Macho Philipovitch (Dr. Tsuruta),  
Thor Aitkenhead (Dr. Fujino)

Animation by: Thor Aitkenhead

Additional Photography by: Thor Aitkenhead, Joe B. Fobister, Takashi Miyakita,  
Susumu Yorita

## Screen Shots



Violation of treaty rights has led to the loss of hunting and trapping licenses, compounded by clear-cutting of off-reserve treaty lands. Hector and Joe explain why they no longer trap (photo by Tadashi Orui).



Dr. Masazumi Harada, a mercury poisoning specialist from Japan has been tracking the impacts of long-term exposure to low levels of mercury on Indigenous peoples in Canada (photo by Tadashi Orui).



Mercury accumulation in fish, a key food source, has severely limited the economy in Grassy Narrows First Nation and negatively impacted the health of residents (photo by Thor Aitkenhead).



Clear-cutting of off-reserve treaty lands by Abitibi-Bowater is just one of many processes of destruction of the Indigenous way of life (photo by Tadashi Orui).

## Key Participants

### **Masazumi Harada**

Harada was born in 1934 in Japan and graduated from medical school at Kumamoto University. His fields of specialty are Congenital Minamata Disease, Fetal Toxicology (methyl-mercury, PCB, Dioxin, etc.), Environmental and Occupational Toxicology and Epidemiology. Harada testified at court cases on Minamata disease, related environmental diseases and occupational diseases.

### **Robert Keesick**

Keesick was born in 1928 and taken to residential school at age six. He stayed at school for six years during 1930's. He was chosen to be one of three elders in Grassy Narrows First Nation. Keesick Sr. was the last Chief chosen under the traditional clan system, before the current election system, enforced by the Indian Act, began in Grassy Narrows.

### **Bill Fobister**

Fobister was born in 1946. He was Chief from 1999 to 2001. Fobister Sr. visited Minamata in 1975 as one of five indigenous representatives who met with Minamata Disease patients.

### **Roberta Keesick**

Keesick is one of the daughters of Robert Keesick. She has been working for over 10 years as a financial administrator for the Band Office of Grassy Narrows. Keesick is currently building a trap cabin without permission from the Ontario government to exercise her Treaty Three rights. She has been indicted by the Ontario government for this action.

## Learn More

### **CBC Archives on Dr. Harada's first visit to Canada**

<http://archives.cbc.ca/environment/pollution/clips/6455/>

### ***Diagnosis Mercury: Money, Politics & Poison***

**Written by Jane M. Hightower, M.D., Published by Island Press, 2009**

This book is the most recent contribution on the state of mercury poisoning in the world today. As well, it includes a chapter that highlights the situation in Canada in the 1970s, detailing how the federal government tried to suppress the information on severe poisoning in Indigenous communities.

<http://books.google.ca/books?id=bgKSPTZ-KUAC&printsec=frontcover&dq=%22Diagnosis+Mercury%22&lr=#v=onepage&q=&f=false>

### **Implications of Poisoning**

"...mercury compounds continue to be released into the atmosphere. The largest sources of mercury emissions in the U.S. and worldwide are coal-fired power plants, waste incinerators, metallurgy/mining operations (especially gold mining), and chlor-alkali plants that employ mercury-cell technology. A potentially growing source of mercury is disposable products, such as compact fluorescent bulbs and personal electronics (cell phones, LCD TVs, digital cameras), which contain mercury. The mercury eventually leaks into the atmosphere when broken or crushed in a landfill." [http://www.oar.noaa.gov/spotlite/2008/spot\\_mercury.html](http://www.oar.noaa.gov/spotlite/2008/spot_mercury.html)

When mercury enters the water system, either through direct deposit or precipitation, it converts to organic mercury (methyl-mercury). As it bioaccumulates in fish and animals it becomes increasingly toxic. A study by the US Geological Service (USGS), published in August 2009, found mercury in fish in 291 freshwater streams across the United States, sampled over a seven-year period. "Methylmercury, which is formed in wetlands and in seasonally inundated areas, is delivered by runoff to streams; methylmercury concentrations within streams increased with increased streamflow and dissolved organic carbon. Among streams, a high density of wetlands and forests, and high concentrations of dissolved organic carbon in water were associated with high methylmercury concentrations." Key findings from the USGS study are available at: <http://water.usgs.gov/nawqa/mercury/majorfindings.html>

### **McIntosh Residential School**

"The McIntosh residential school was built in 1923-24. Until 1949, when a road was built through McIntosh, access to the school was by water or rail. At its peak, this school could house about two hundred Aboriginal children from northern reserves...Many Grassy Narrows people attended the residential school at McIntosh."

*A Poison Stronger Than Love* by Anastasia M. Shkilnyk, p. 246

### **Minamata**

"Minamata is a village of about forty thousand persons, located on the southernmost island of Japan, Kyushu, on the bay of the Shiranuhi Sea. Its inhabitants make their living by commercial fishing, tourism, and working in the giant petrochemical complex owned by the Chisso Corporation. The town is associated with Minamata disease, which is known to have taken 107 lives and by 1970 had left over a thousand people with irreversible neurological damage... The disease fell most heavily on the poorest people of the area, who were most dependent on a steady diet of fish and shellfish."

*A Poison Stronger Than Love* by Anastasia M. Shkilnyk, p. 183