

Q&A: Gull and Tern Egg Consumption Advisory

Why is this consumption advisory being issued?

In 2012, researchers from the Joint Oil Sands Monitoring program tested bird's eggs from Northern Alberta for mercury. Gull and tern eggs found near Lake Athabasca and Mamawi Lake were tested. The study was published in 2013. Since these eggs may be a traditional food source for some Aboriginal people, the data on mercury levels was submitted to Alberta Health.

In November 2013, Alberta Health completed a human health risk assessment, based on the information from the Joint Oil Sands Monitoring program study. After reviewing the human health risk assessment, Alberta's Chief Medical Officer decided a food consumption advisory was necessary.

What are the health risks associated with mercury exposure?

According to Alberta Health, the health risks from eating methylmercury depend on the amount that is ingested. Low levels of mercury are of concern mainly to women who are pregnant and small children.

Exposure to mercury in the womb can negatively affect the baby's growing brain and nervous system. This may affect thinking, memory, attention and language. This level of mercury exposure could be possible if pregnant women and children exceed the recommendation in the consumption advisory.

Adults can be affected by mercury at much higher levels. These symptoms could include numbness, muscle weakness, vision and hearing problems.

Who will be affected by this advisory?

People who eat gull or tern eggs taken from nests around Lake Athabasca and Mamawi Lake would be affected.

How are you communicating this to people?

Alberta's Chief Medical Officer of Health has notified the Nunee Health Board Society, and First Nations and Métis associations near the advisory area that may consume the eggs.

Why are you issuing the advisory now?

The advisory is being issued before the birds return to their nests and lay eggs, which normally occurs in mid-May.

How long will this advisory be in place?

The advisory will be in place until there is evidence that the mercury level in the eggs has decreased. As more information becomes available through Joint Oil Sands Monitoring (JOSM) or other sources, Alberta Health will re-evaluate the advisory.

What are the sources of mercury? Where does mercury come from?

Mercury is a naturally-occurring substance in the environment, released at a global scale normally through events such as volcanic eruptions, wildfires and erosion.

Mercury is also released due to human activity, like coal combustion, metal manufacturing and other industrial processing.

The birds are exposed to mercury from the food that they eat, with fish being a key source of food. The study does not indicate whether or not the mercury is coming from the oil sands related sources.

Does the government monitor mercury levels in the north?

Yes, water and air monitoring programs are used to measure mercury levels at various sites in the north. The Alberta government follows Canadian environmental quality guidelines for all organic and inorganic chemicals, including mercury and methylmercury.

What time of year do terns and gulls typically lay their eggs? Are the eggs available for eating now?

Both terns and gulls plan their migratory return to Canada around the availability of open waterways. Shortly after their arrival they will begin to breed, which leads to the eggs being laid in mid-May to early June.

Could these birds have absorbed mercury on their migratory route or in their seasonal habitat?

Gulls will typically overwinter in the southern range of North America (e.g., Texas, Mexico). Terns typically overwinter along the Florida Panhandle and into the Caribbean. They arrive at their nests in Alberta in the spring, several weeks before they lay their eggs.

These birds are called "income breeders". What this means is that most of the material that goes into the eggs comes from the food eaten by the laying female near the nest and in a relatively short period before they lay their eggs. **The local food sources are the "income"**• the birds take in and then shortly thereafter they use that income for egg laying. So, most of the mercury in the eggs likely comes from local sources as well.

Again, however, the source of the mercury is not determined in the study.

What sorts of diets do these birds follow?

Terns eat fish, while the gulls are opportunistic omnivores.

Where can information be found around fish consumption advisories?

The Government of Alberta posts and issues fish consumption advisories when there is a risk to health from eating fish pulled from provincial waterways. The list can be found at:

<http://mywildalberta.com/fishing/SafetyProcedures/FishConsumptionAdvisory.aspx>