

The Marathon Battery Factory and Toxic Cadmium



Ecology and Evolution: Toxins in the Hudson

Foundry Cove



West Point Foundry

1800's



Battery Factory

1952 - 1977





Batteries

- Non-rechargeable
- Rechargeable
- Lithium ion
- Nickel-metal hybrid
- **Nickel-cadmium**



Cadmium –
toxic heavy
metal



Made by
Marathon
Battery Factory
at Foundry
Cove

Foundry Cove on the Hudson River

- 98 miles south of Albany; 54 miles north of New York City
- Inlet of the Hudson River
- Freshwater marshes and mudflats



Part of Foundry Cove is visible in the lower right.

Cadmium in Animals

Muskrats 15 ppm in muskrat kidneys



Blue Crabs 12 ppm in blue crab hepatopancreas tissue (the “green stuff”); lower levels were found in muscle (the part people eat)



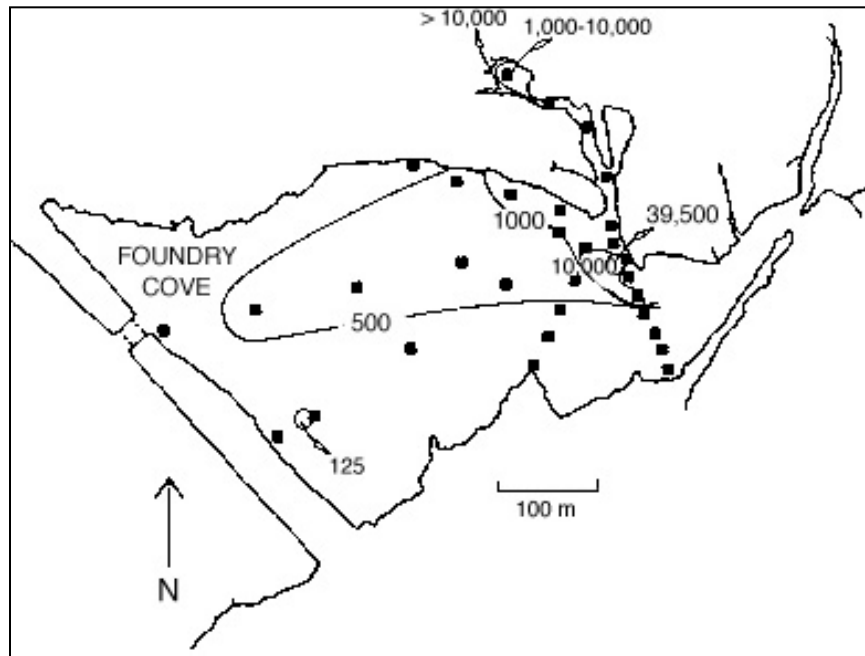
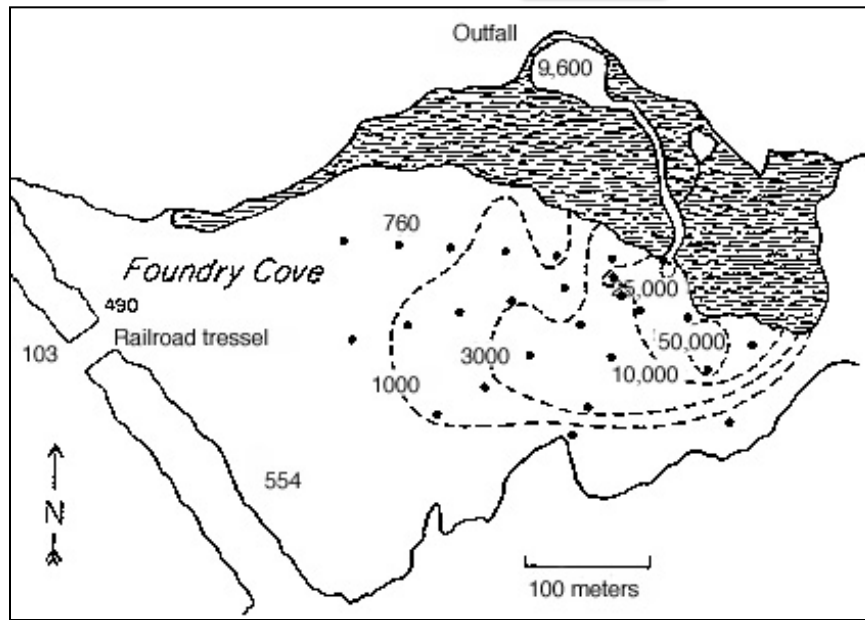
Benthic (bottom dwelling) worms

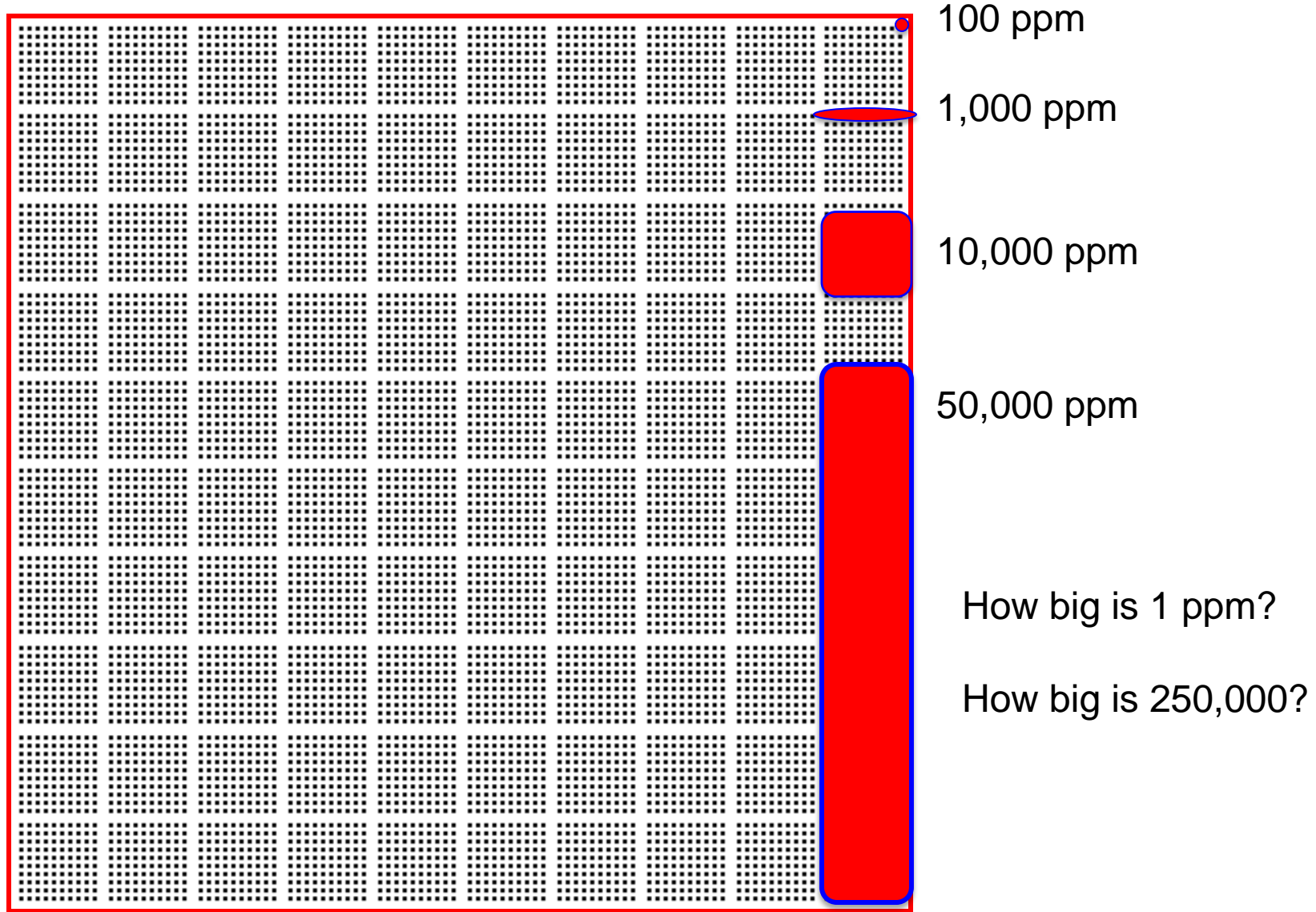




What's so bad about a little cadmium?

- At very high levels, causes **Itai-Itai** (or ouch-ouch) disease in humans – pain in bones and joints, bones break easily
- Can cause **cancer** and other **health problems**
- Entered the **human food web** via contaminated blue crabs in the Hudson River
- **Liver lesions** in muskrats in Foundry Cove





Looking at a Millionth