

Contaminants in Lake Ontario Sport fish and Young-of-the-year

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Outline

- Background
 - Sports Fish Contaminant Monitoring Program
- Contaminant levels and trends
- Current sampling plans for 2007-08

MOE - Sport Fish Contaminant Monitoring Program (SFCMP)

1970 - Fish contaminant monitoring started to address Hg problem in St. Clair River

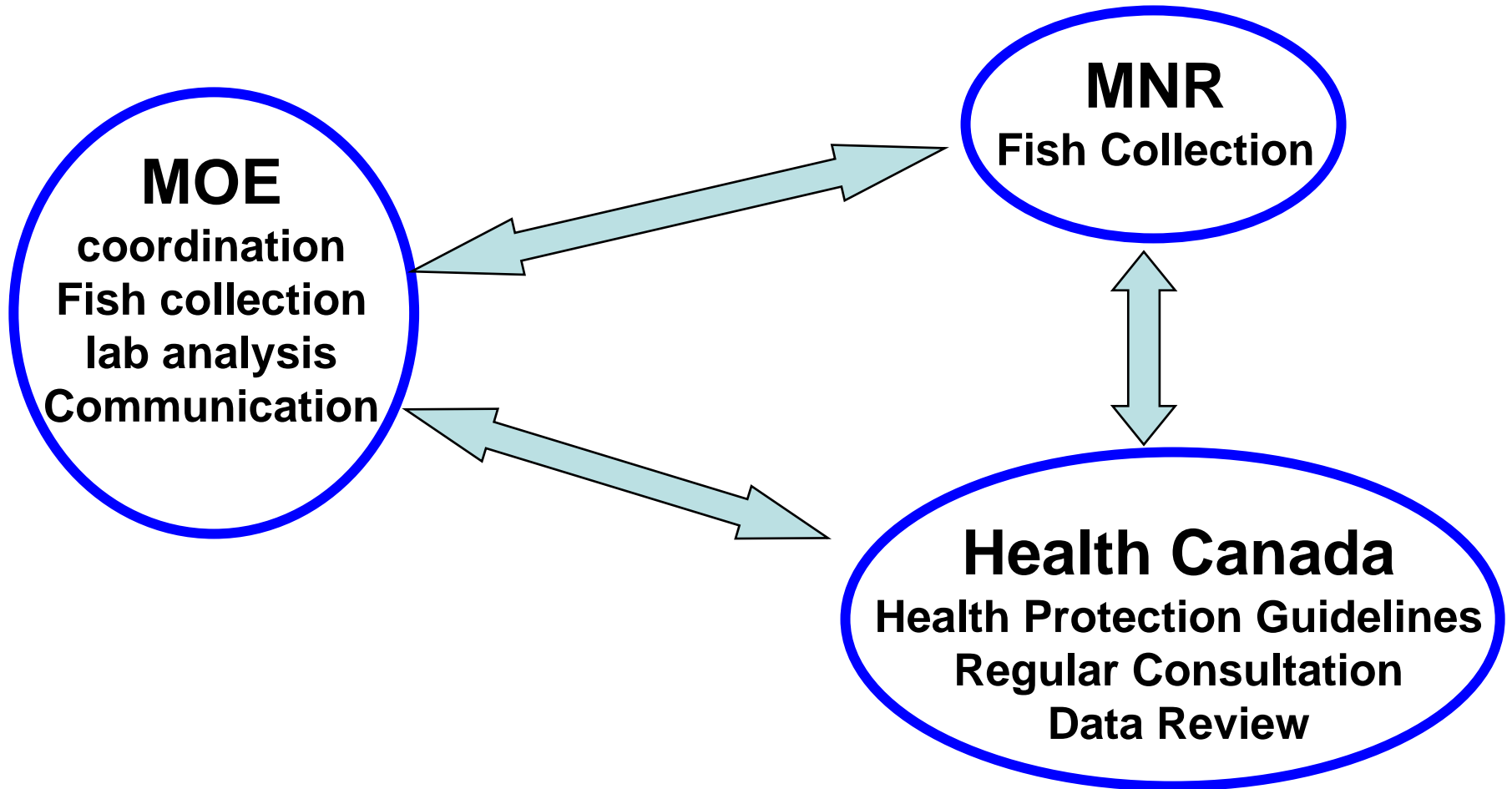
1975 - SFCMP started to consolidate all monitoring

1977 - *Guide to Eating Ontario Sport Fish* publication started

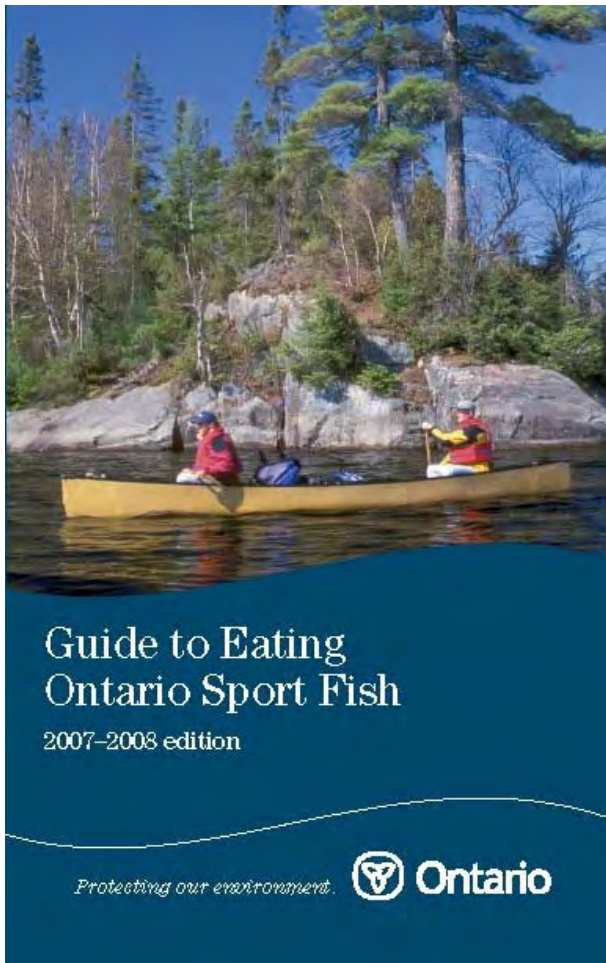
MOE - Sport Fish Contaminant Monitoring Program (SFCMP)

- Monitors contaminants in fish
 - Sport fish & Juvenile fish
 - More than 1700 locations across Ontario
 - Canadian waters of the Great Lakes
- Assesses health risk
 - Partnership with Health Canada
 - Develop fish advisories
- Communicates risk to stakeholders

Partnership



Guide to Eating Ontario Sport Fish



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Fish can be an important part of a balanced diet. They are low in fat and a great source of high-quality protein and other nutrients.

But Did You Know?

- Some fish from Ontario waters have contaminants that can be harmful to humans.
- Scientific studies show that the developing fetus and young children are particularly sensitive to these contaminants.
- Fish in some freshwater lakes.
- Women of childbearing age and children under 15 should restrict their consumption of most sport fish caught in Ontario waters.
- Some freshwater fish should not be consumed at all.

Most jurisdictions in North America advise consumption restrictions on sport fish. The Ontario Government notifies contaminants in Ontario fish and provides consumption information to the public through the *Guide to Eating Ontario Sport Fish*.

Keep Yourself Informed and Protect Your Family!

If you consume sport fish you should consult the *Guide to Eating Ontario Sport Fish* for:

- Consumption advice on sport fish from more than 1200 locations in Ontario.
- Separate advice specifically for women of childbearing age and children under 15.
- Advice on the size and quantity of fish that can be safely eaten.

Store-bought Fish

Most but not all fish purchased from retailers are low in contaminants. Contact Health Canada for specific advice on shark, sea bream and trout. If you regularly consume store-bought fish and intend to eat sport fish, you should check the *Guide to Eating Ontario Sport Fish* for specific advice. If in doubt, contact your doctor, or the agencies listed below.

To obtain your free copy of the *Guide to Eating Ontario Sport Fish*:

- Fill in the attached mail-in card or
- Contact the Sport Fish Contaminant Monitoring Program (see below), or
- Access the Guide on the Internet at www.ontario.ca/fishguide.

For Further Information:
 Sport Fish Contaminant Monitoring Program
 Ministry of the Environment
 121 Ross Street
 Toronto, ON M5P 2K6
 Tel: (416) 327-6816 or 1-800-829-2716
 E-mail: sportfish.moo@ontario.ca
 Website: www.ontario.ca/fishguide

Health Canada
 Tel: (613) 957-2091
 Website: www.hc-sc.gc.ca

Canadian Food Inspection Agency
 900 - 101 St. John Street
 Ottawa, ON K1A 0H6

Check Before You Eat

Please take care

Some sport fish in Ontario contain contaminants that may restrict the amount you should consume. For detailed consumption advice, please consult the *Guide to Eating Ontario Sport Fish*.

To receive a free copy of the English/French *Guide to Eating Ontario Sport Fish*, please contact:
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 416-327-6816 or 1-800-829-2716
 E-mail: sportfish.moo@ontario.ca
 Website: www.ontario.ca/fishguide

Protecting our environment. Ontario

Contaminants in Sport Fish
 Important information for protecting your family

Protecting our environment. Ontario

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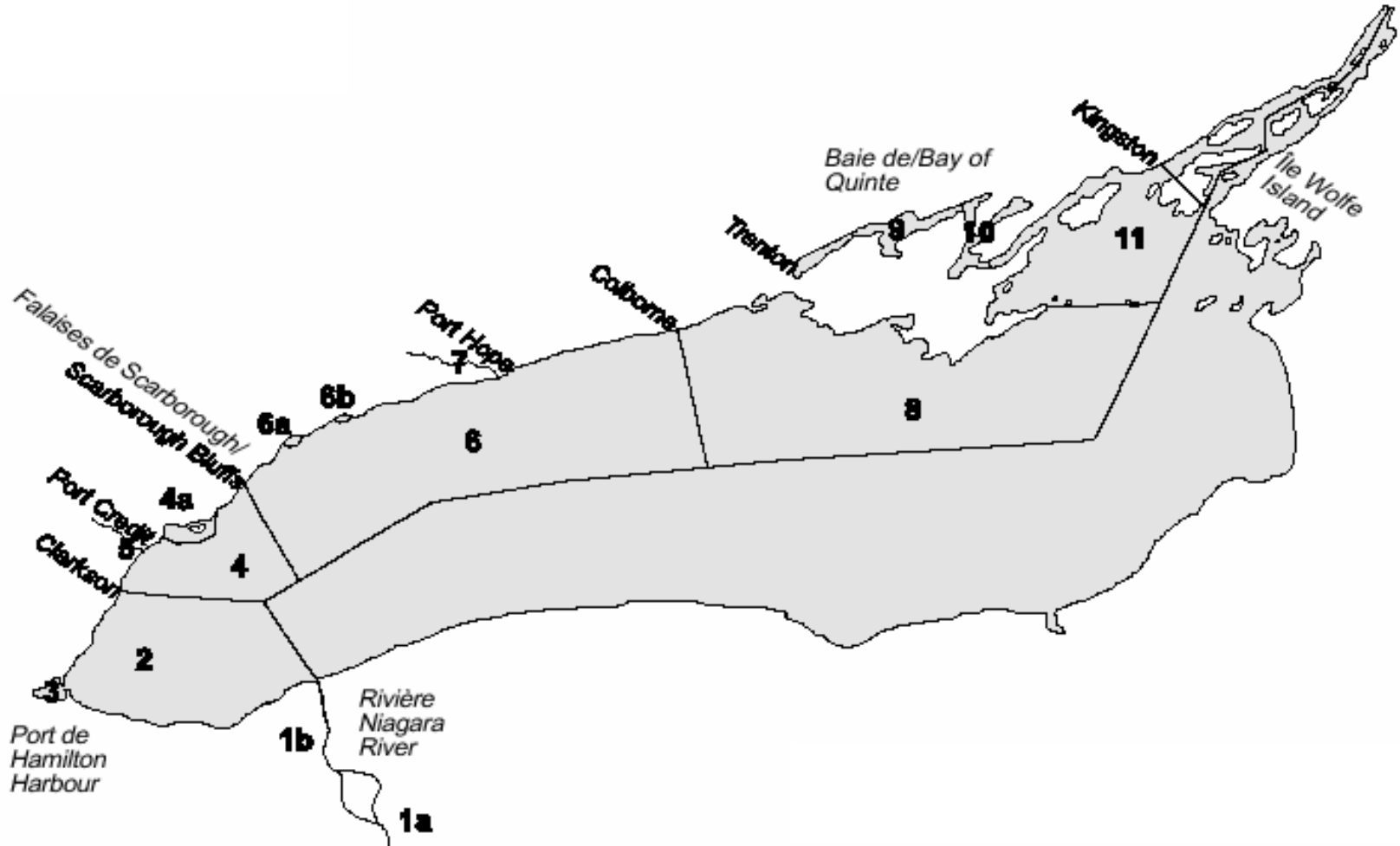
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Contaminants being monitored

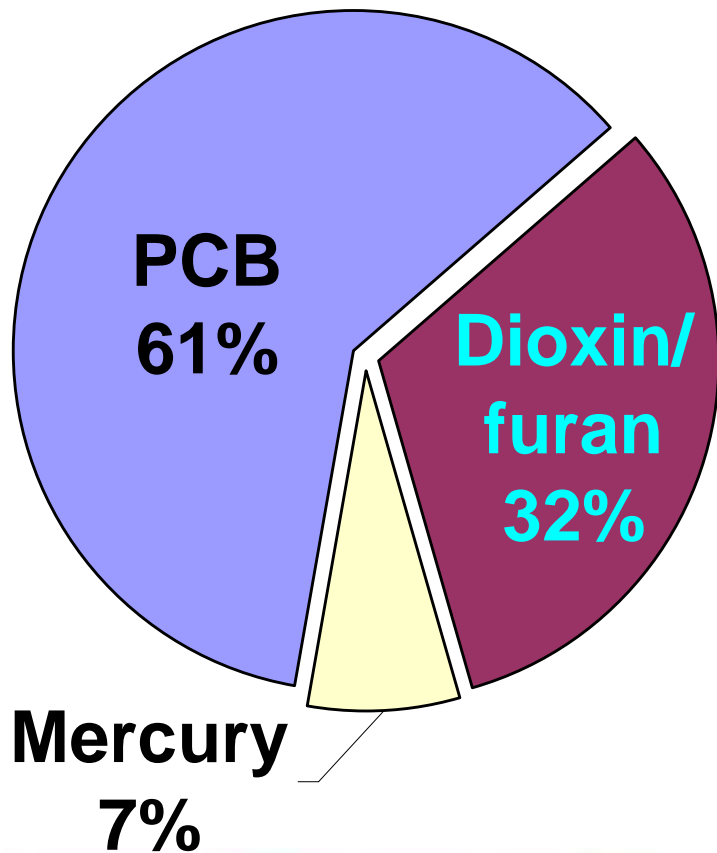
- PCBs
- Dioxin/Furans/Dioxin-like PCBs
- Hg
- DDT, DDD, DDE
- Chlordane
- Hexachlorobenzene
- Hexachlorocyclohexane (BHC)
- Mirex, Photomirex
- Octachlorostyrene
- Metals
- Other contaminants including PBDEs, PCNs and PFOS on periodic basis

Lake Ontario Blocks

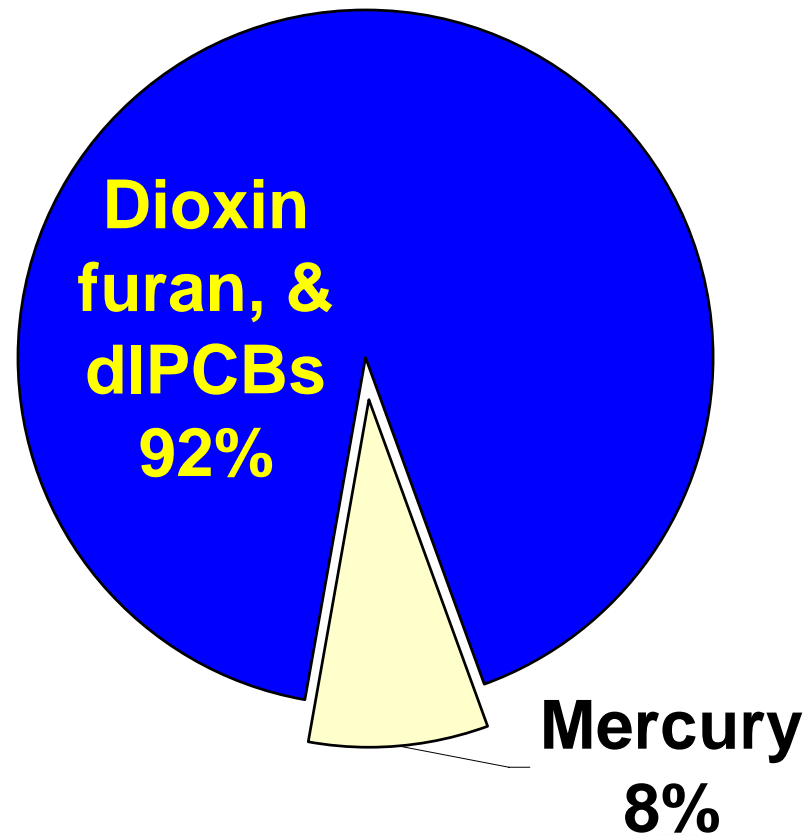


Contributions to advisories

2005-06



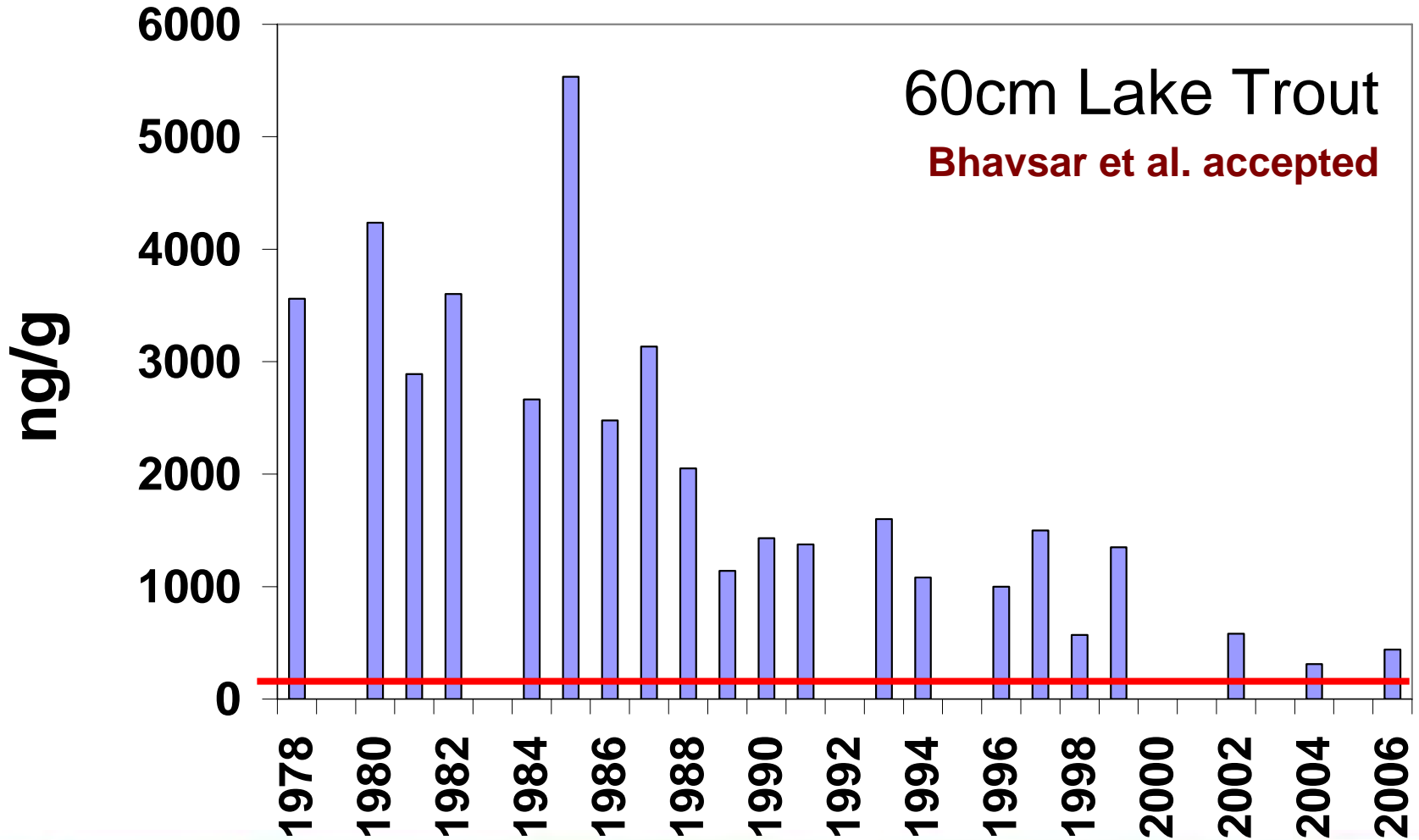
2007-08



Levels & Trends

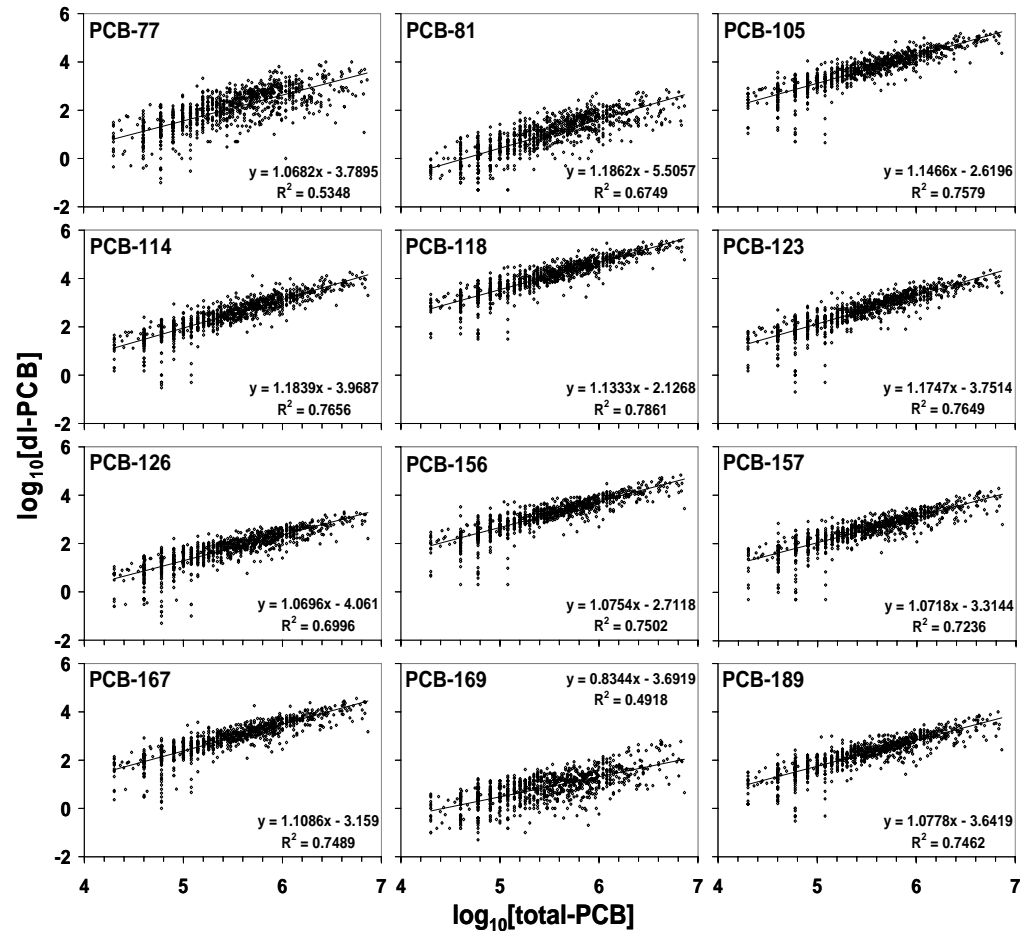
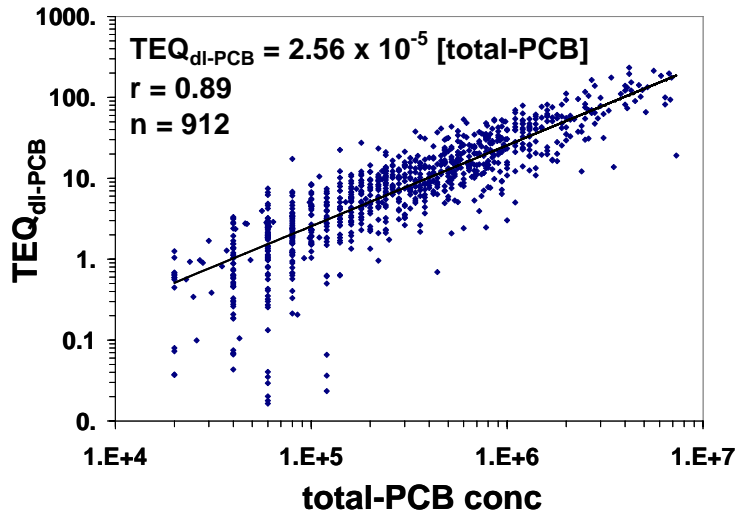
60cm Lake Trout

Total-PCB



dl-PCBs and total-PCB are linearly related

→ total-PCB trend ≈ dl-PCB trend

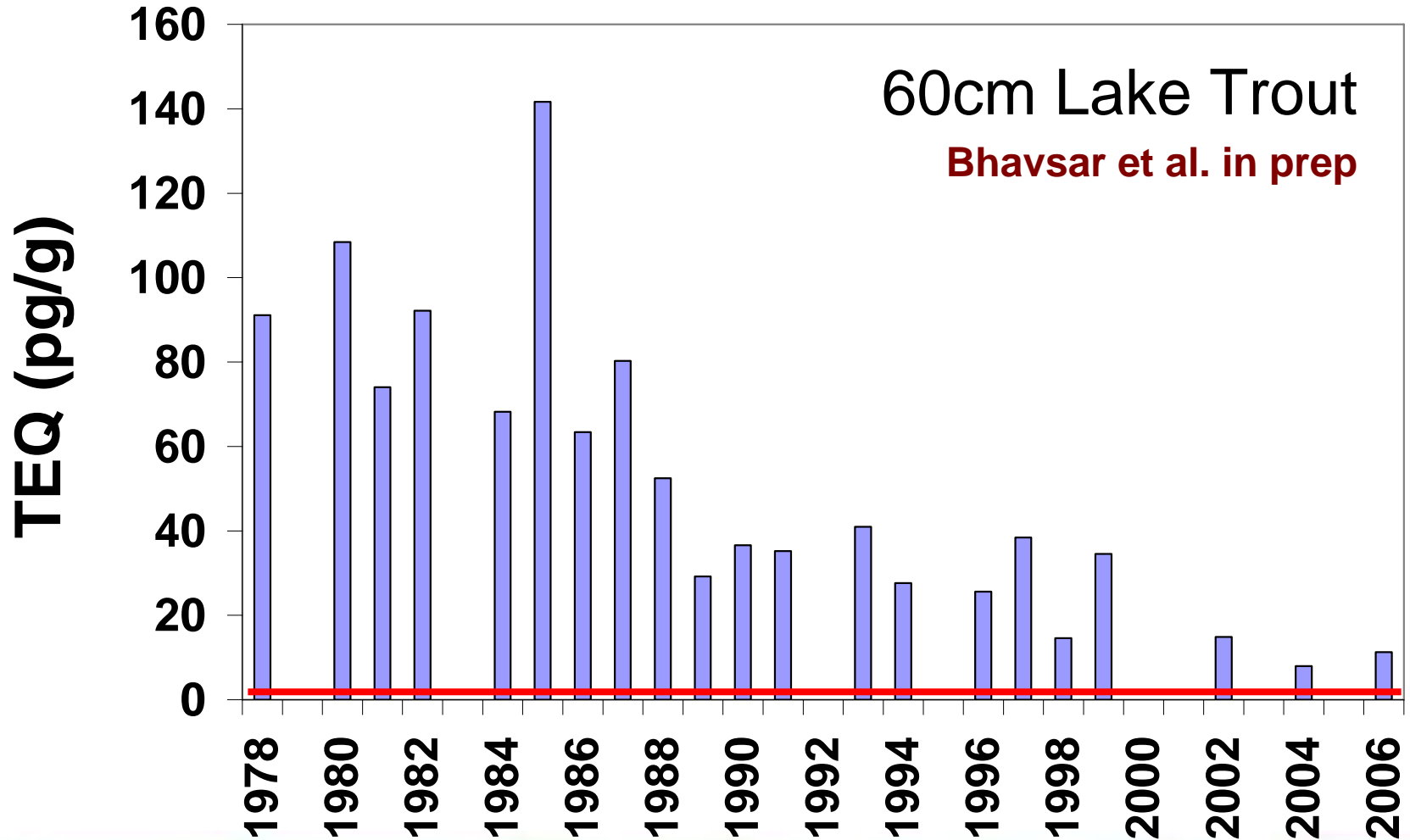


Bhavsar et al. in press *ET&C*

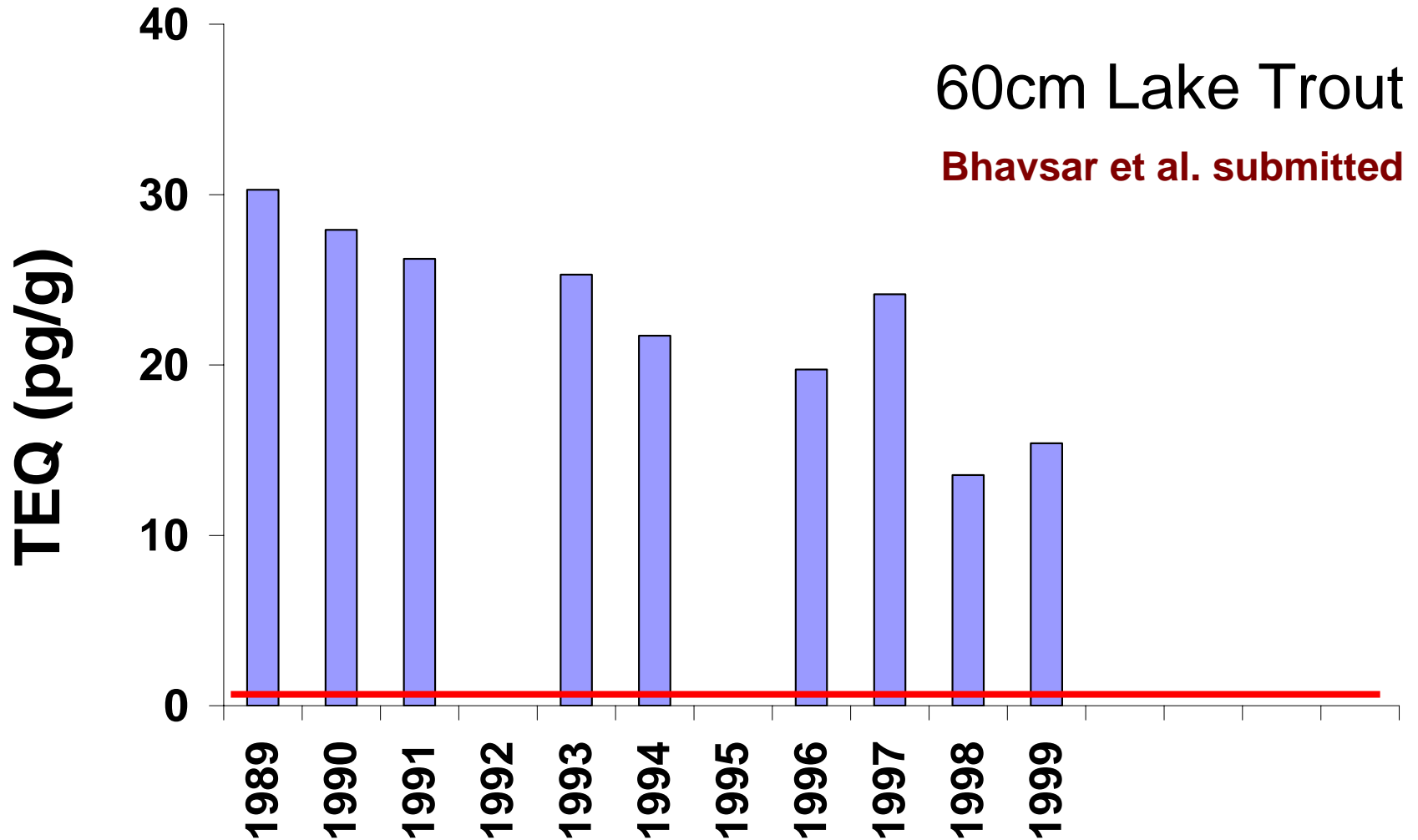
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Conc are in ng/g

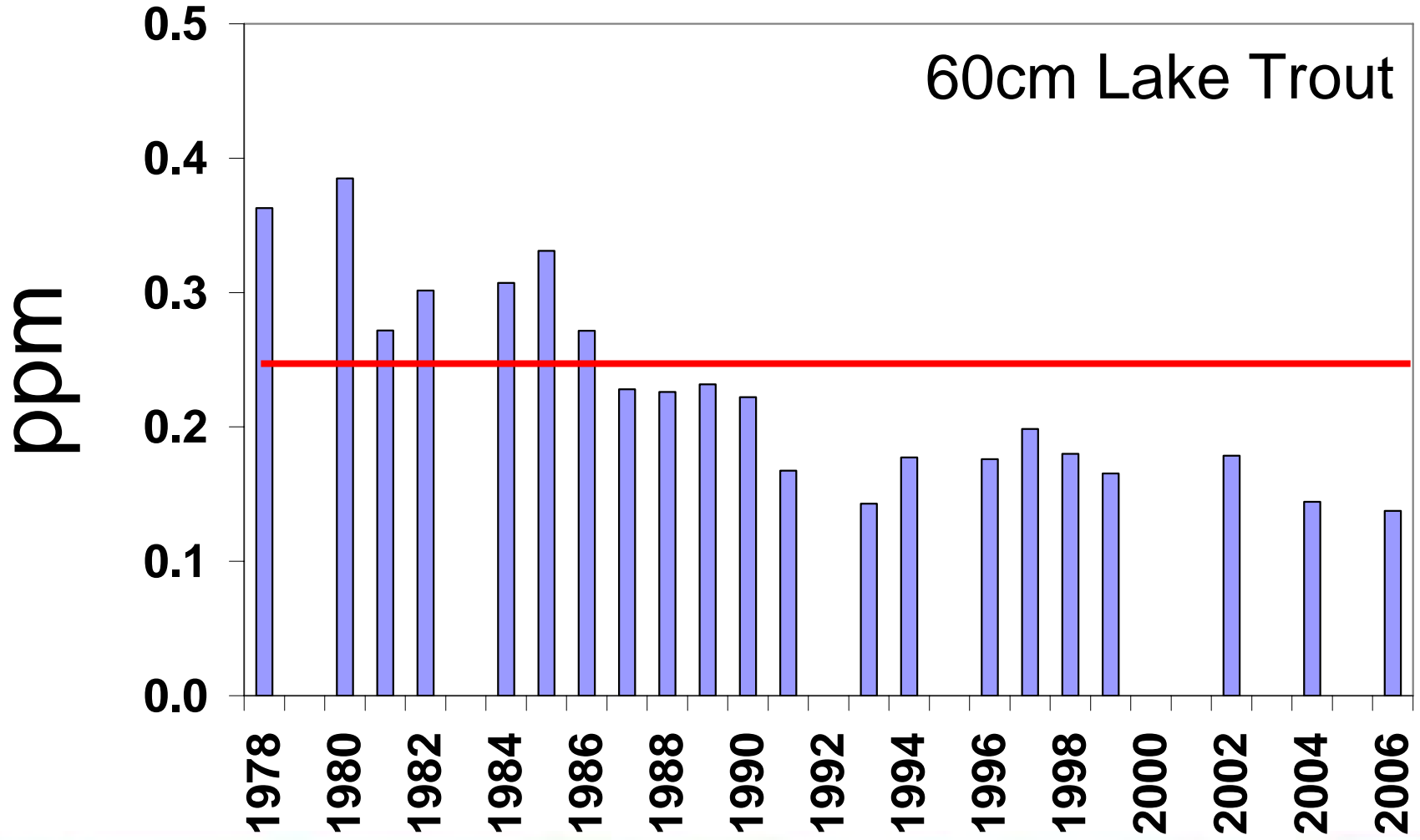
Dioxin like-PCB



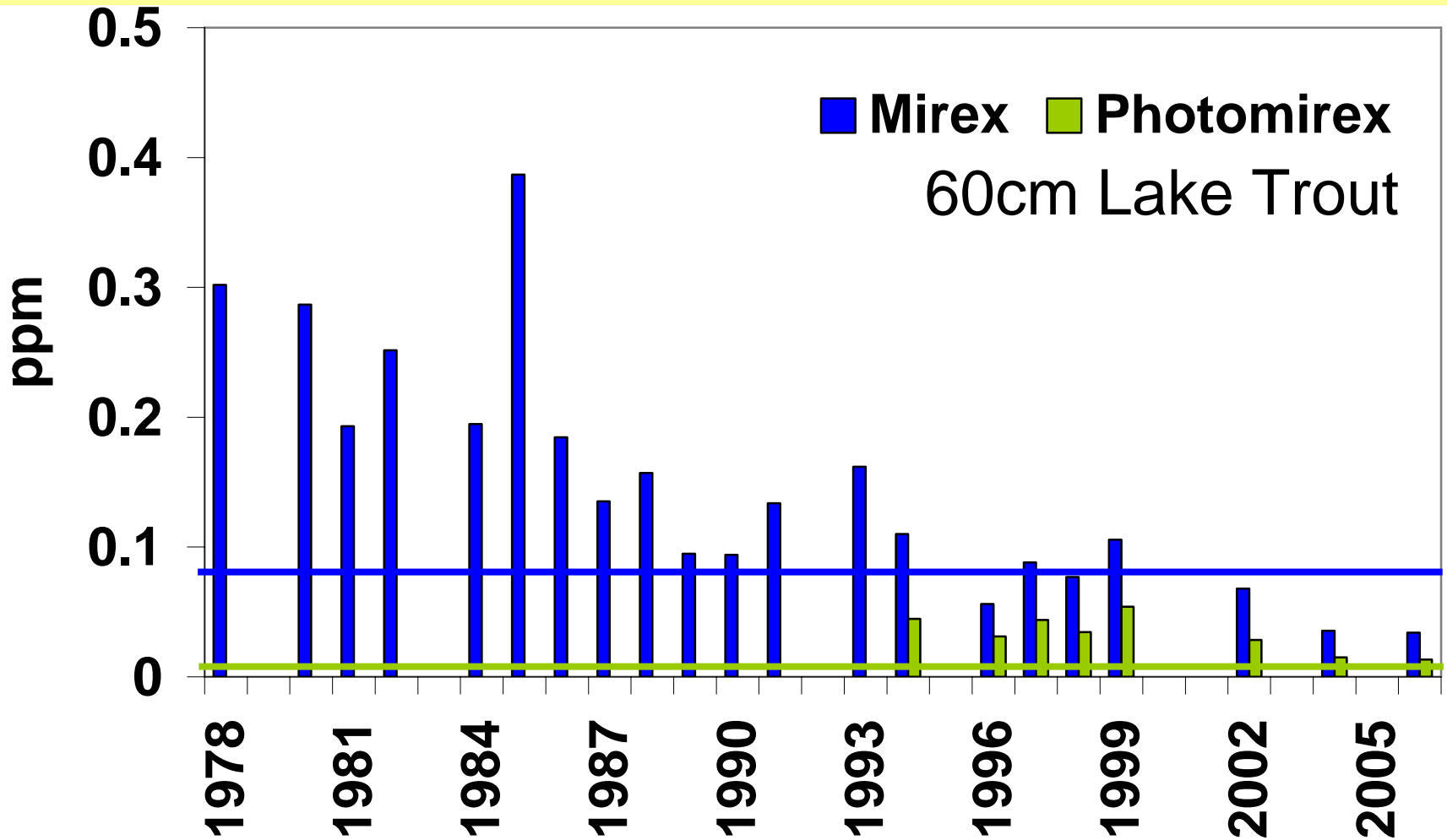
Dioxins/Furans



Hg



Mirex & Photomirex



Levels & Trends

Juvenile Spottail Shiners

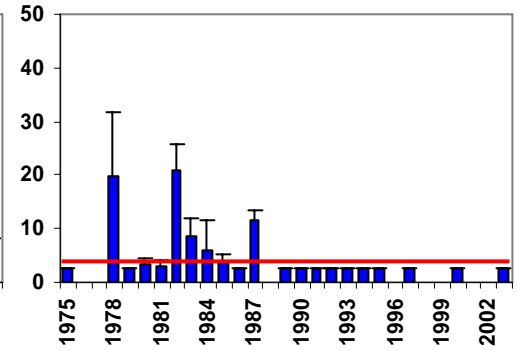
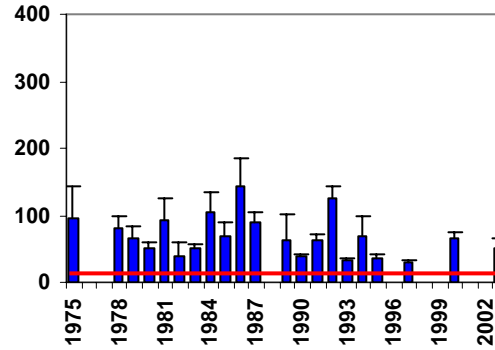
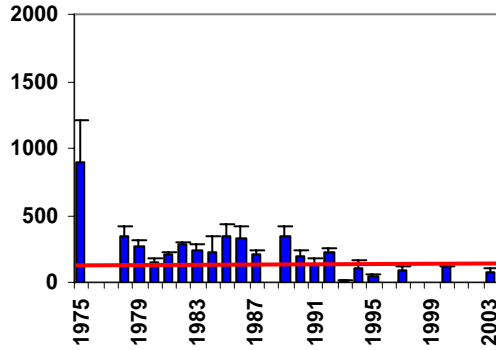
ng/g

Total-PCB

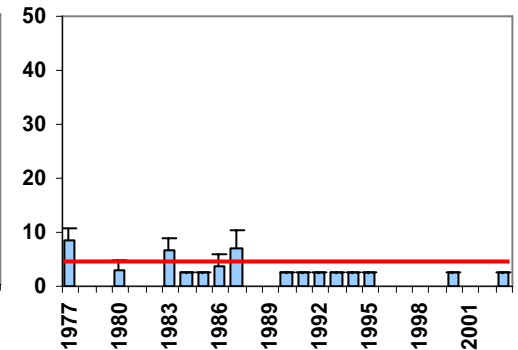
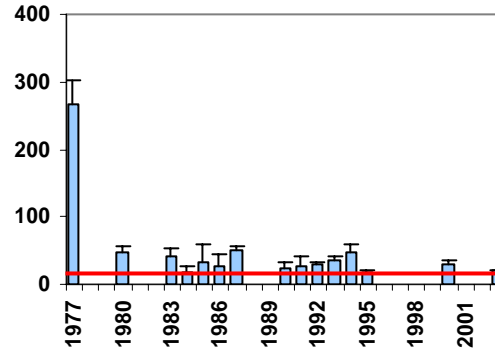
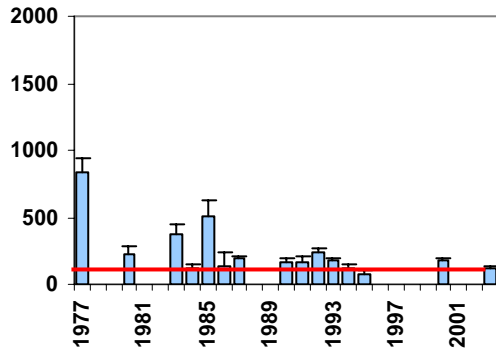
Total-DDT

Mirex

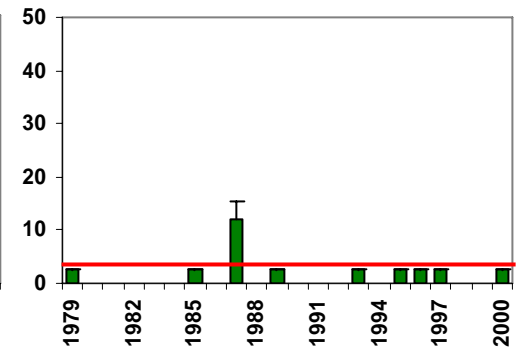
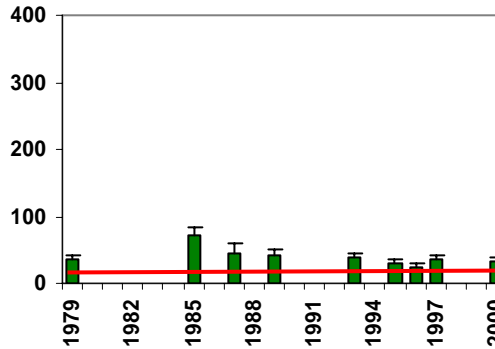
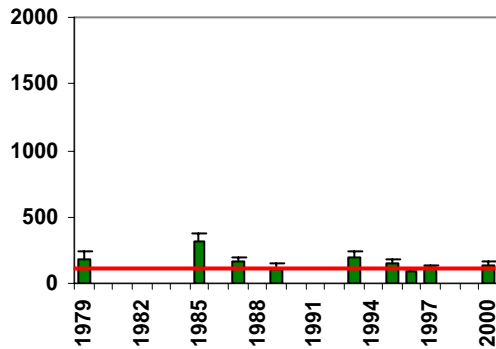
Twelve
Mile Creek



Burlington
Beach



Bronte
Creek



Sampling plans for 2007

Contaminants in Sport Fish

- Upper Niagara River
- Lower Niagara River
- Western Lake Ontario
- Hamilton Harbour
- Northwestern Lake Ontario
- Ganaraska River
- Upper Bay of Quinte
- Middle Bay of Quinte

Every year, sport fish are collected from most blocks

Contaminants in Forage Fish

- There are **NO PLANS** for forage fish collections at this time for 2007
- Next regular sampling is scheduled for 2009
- 2008 sampling – open for discussion