

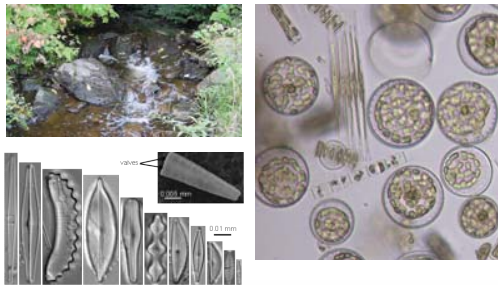
# An Algal Protocol & Diatom Index for Ontario

Michelle Palmer<sup>a</sup>, Isabelle Lavoie<sup>b</sup>, Cheryl Goncalves<sup>c</sup> & Jennifer Winter<sup>a</sup>

The MOE and partners have developed a diatom sampling protocol (ABP) & analysis tool (IDEC) to assess the water quality of Ontario rivers. The ABP & IDEC offer a cost-effective technique for monitoring & comparing water quality across Ontario.

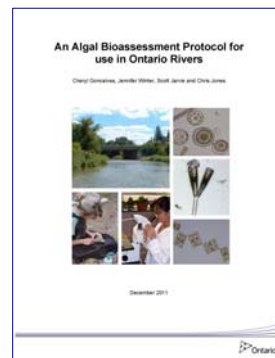
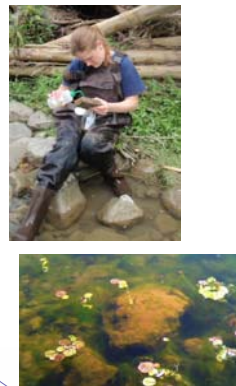
## What are diatoms

- Benthic diatoms are microscopic algae that form a biofilm on submerged substrates.
- Sensitive bioindicators that respond quickly to changes in water quality.
- Integrate water quality conditions over a period of weeks.



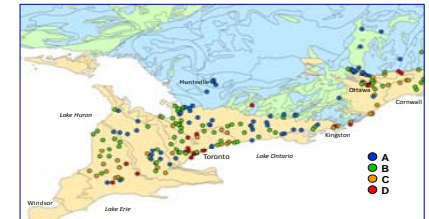
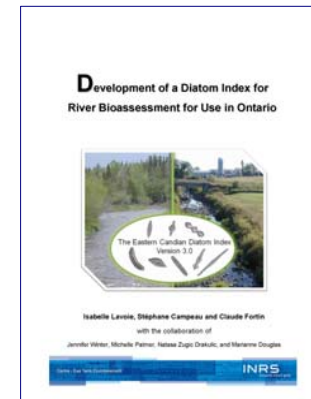
## Algal Bioassessment Protocol (ABP)

- Describes, step-by-step, diatom collection & counting methodology.
- Provides a standardized approach for assessing water quality.
- Complements existing provincial monitoring programs.



## Eastern Canadian Diatom Index (IDEC)

- Compares diatom communities to unimpacted reference sites.
- Sites are scored on a scale of 0-100, grades indicate site water quality.
- Used to identify priority monitoring & restoration sites.



**To know more**  
Michelle Palmer  
[Michelle.palmer@ontario.ca](mailto:Michelle.palmer@ontario.ca)

<sup>a</sup>Environmental Monitoring & Reporting Branch, Ontario Ministry of the Environment (MOE), Toronto, Ontario, Canada

<sup>b</sup>Institut national de la recherche scientifique, Centre Eau Terre Environnement, Québec, Québec, Canada

<sup>c</sup>Toronto & Region Conservation Authority, Vaughan, Ontario, Canada