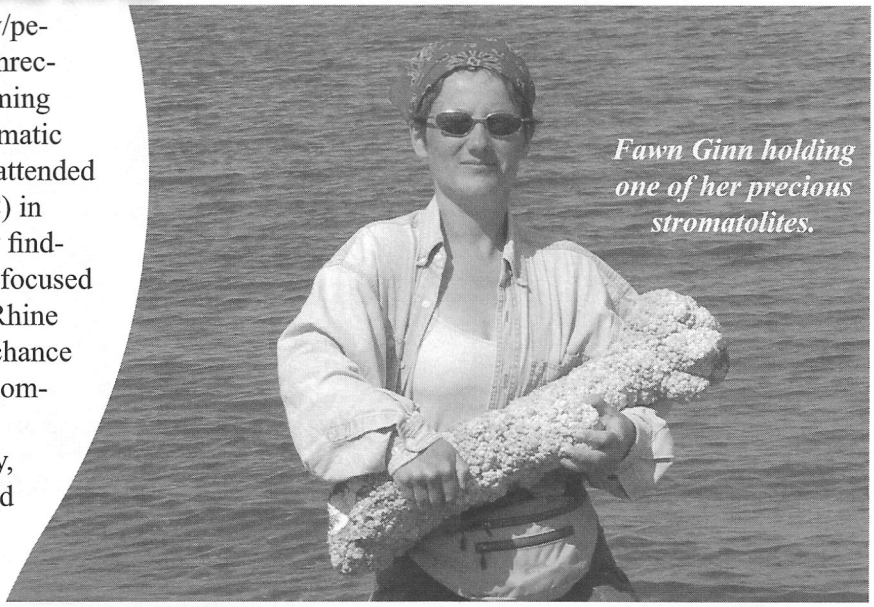
News



Fawn Ginn holding one of her precious stromatolites.

Fawn Ginn (NSERC PhD student, limnology) noticed what others had missed in over 70 years of research on a Saskatchewan lake: stromatolites, including growing ones. The stromatolites in Manito Lake, west of Battleford, led to the identification of a geologically recent cold phase in western Canada which started abruptly about 2200 years ago and ended abruptly approximately 800 years later. The key evidence is hidden within the stromatolite's onion-like layers, created when excretions and minerals from colonies of cyanobacteria mix with dirt and minerals in water. In analyzing the stromatolites Fawn discovered that pure calcite, an unusal finding, had replaced ikaite. It appears ikaite formed in ice-cold salty water, but when temperatures rose above freezing, it was replaced by calcite. Carbon-dating indicates that the ikaite layers formed about 1400 to 2200 years ago.

The discovery comes as part of Bill Last's larger NSERC-funded research project to determine the cause of dramatic and diverse changes in the levels of prairie lakes. Since the 1920's, Manito Lake has lost about 90 percent of its volume. Stranded stromatolites can be found as far as 500 metres from its current shoreline.