Ice Symphony

Chilly Schanda Park in Newmarket
photo by Rachel Stevens

Most of the 49-mile Lamprey River is freshwater, but the 2-mile section from Macallen Dam in Newmarket out to Great Bay is saltwater. Twice a day, this water rises and falls with the tides. This rhythm occurs even with a covering of ice. As ice expands with the incoming tide and constricts with the outgoing tide, it cracks and contorts. This action does not happen silently. The sound waves travel through air and water as usual, but they are distorted when they travel through ice. The result is a symphony of eerie and spacy sounds consisting of creaks, groans, pings, pops, rumbles, and screeches. The best times to hear these estuary concerts are when the tide is actively turning, about halfway between high and low tides. Free tide charts based on location are readily available on-line.

The same phenomenon that occurs in estuaries and on tidal rivers can also be found on frozen lakes. Lakes do not experience tides, but changes in temperature cause ice to contract and expand, resulting in similar sounds. The best times to catch an ice symphony on freshwater typically are often near sunrise and sunset when the sun actively affects the temperature of air. For those who have not heard an ice symphony, internet searches using “sounds under ice” will produce a few lake hits. Lake ice sounds are interesting, but tidal flows help to diversify the mix, with currents’ sometimes dragging ice under ice. So, dress warmly and go visit your local tidal river in person. If you are lucky, the ice will be nice and sound will abound.