

Keuka Lake “Got Foam”-Cause for Concern?-Peter Landre, Cornell Cooperative Extension

Keuka Lake, along with all freshwater lakes, have always had some level of natural "foam" from wave action combined with organic matter that acts as a surfactant or foaming agent. Since 2001 we have seen at times, larger scaled foam episodes in some parts of the lake. Water samples taken from the lake indicate the foam is a natural occurring substance consistent with the decomposition of a large die-off of zebra mussels and algae. The foam is not a health concern for swimming or drinking water.



What is the cause of lake foam and why are we seeing higher amounts? The white foam found in lakes and streams is usually natural. Wind-driven currents frequently create parallel streaks of foam in open water. Foam is created as decomposing plants and animals release organic compounds into the water. The compounds act as a "surfactant" and reduce the surface tension of water, causing bubbles to form. Many people blame shoreline foam on detergents, but detergents don't create long-lasting foam since they quickly lose their sudsing ability. Natural foam has a somewhat earthy or fishy aroma. Detergent foam, in contrast, will have a noticeable perfume smell.



The "lines" of foam that occur are caused by “langmuir” currents. These currents are formed on the sides of wind-driven waves causing a "funneling" action and the characteristic windrow of surface foam and other debris. The windrows will be more pronounced on a windy, southerly front (as seen in the photo above on 9/28/05).