

Summertime Bathing

Every year we hear visitors and long-time residents who say, “I love to get up in the morning and bathe in the lake. Is that OK?” Absolutely NOT! I don’t want to be a spoilsport but there are a lot of things that we used to do in our lakes that we have since learned were not all that good for water quality. The introduction of phosphate containing soaps and shampoos essentially fertilize our lakes, inducing Gleotrichia blooms, and accelerating the natural ageing process of our lakes.



Gleotrichia Bloom

One asks “How can my occasional bathing possibly affect such a large body of water?” This example of a Gleotrichia bloom was taken this past summer on upper Long Pond and is a result of excessive phosphorus loading.

Now this particular bloom was not directly caused by this bather but was certainly contributory. Now is the time to stop “Loving our Lakes to Death”?

And things that weren’t that bad when one person did it are hundreds of times worse when it becomes common practice.

I have asked our very own local lake biologist Roy Bouchard, just retired from the Maine DEP Lakes Division, to weigh in with some science.



Summertime Bathing, by Roy Bouchard

Bathing in the lake was a fun summer tradition that seemed totally harmless before we started to study water pollution. We now know using soap and shampoo is not an advisable activity, particularly when and where lots of other people are doing it.

While many soaps are biodegradable, that does not mean they are harmless. Even assuming there would be rapid dilution; the localized concentrations may be high at least briefly when there are multiple bathers in the same area, together or in succession. Many soaps contain surfactants which are important for cutting oils and similar

substances and making them soluble so they wash off. We also should be aware of additives such as fragrances and anti-bacterial ingredients which are not always benign (or even necessary for a soap to do its work). These are often either toxic or challenging to life in the lake, especially microorganisms and invertebrates. Soaps may also alter the pH (acidity) of the water significantly in the vicinity of their use. Deodorant soaps and dandruff shampoos often contain heavy metals or other ingredients that are harmful when multiple people are using them in an area.

Many soap labels claim “no phosphate” or “low phosphorus”. Most soap, even “no *phosphate*” ones, contains some phosphorus. Several “green” products are indeed a lot better than the standard bathing soaps and shampoos in this regard and are biodegradable. But body oil and other grime washed off bathers’ bodies, greatly aided by soaps with their surfactants, can contribute a lot of phosphorus to fresh waters

In addition to phosphorus, body oils, and other pollutants, bathing in lakes can contribute bacteria and viruses at higher amounts than just swimming. While it may or may not be a health issue in a given situation, do we really want to increase the bacteria numbers in lakes where others are swimming? And many people find the thought of swimming where others have been bathing unpleasant – it makes the lake seem more of a bathtub than a lake.

So what to some may seem an innocuous activity in reality is one of the many things people do that all add up to water pollution. Everyone should know that it is not allowed under state law to intentionally introduce foreign substances (including soap and shampoo) into our waters without a permit. However, let’s not just rely on the law as a justification for saying not to do it. The reasons stated above are behind the law and why I can’t encourage people, pets, or any other kind of bathing or washing in lakes.

Summer camps and public facilities have a special opportunity and responsibility to be good stewards of our waters and to educate not only their campers but the public by way of example. We as lake users have our own role to play by not polluting the waterways we all share.

So please help join us, your neighbors and all that love these lakes to kindly educate the bathers amongst us so that we leave something of these beautiful Belgrades for our children.

Dick Greenan