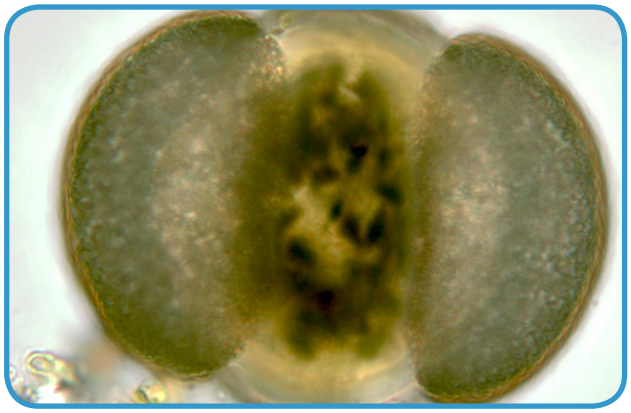
IDENTIFICATION GUIDE: Surface Film fact sheet

Film in a ditch

Dirt and pollen trapped in film



Magnified surface film sample containing pollen

Description:

Surface film is a natural occurrence in still waters as rotting plants and leaves release fats and oils. Surface film from these natural oils can be distinguished from petroleum film by taking a stick and running it through the film. If the film separates and does not reform, it is natural. If the film quickly reforms, it is petroleum based.

Occurrence:

Droplets of plant oils and fats are lighter than water and float to the surface. These droplets collect on the surface and are quickly colonized by bacteria and fungi that form a thin white matrix or film. This film may be colonized by algae. Dirt, pollen, and debris from decaying insects can get trapped in the oils and give the film a brown color. Water foams are created when the film traps gases during wind and wave action. Surface films can be found throughout the year but tend to be more prevalent during fall and winter when temperatures are lower, aquatic plants have died back, and leaves have fallen into the pond or lake.

Significance:

Odors associated with surface films are commonly described as anything from earthy or musty to rancid vegetable oil. Surface films pose no known human or environmental health risk.