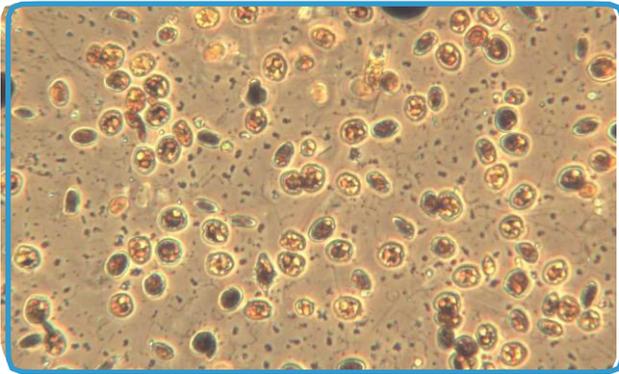
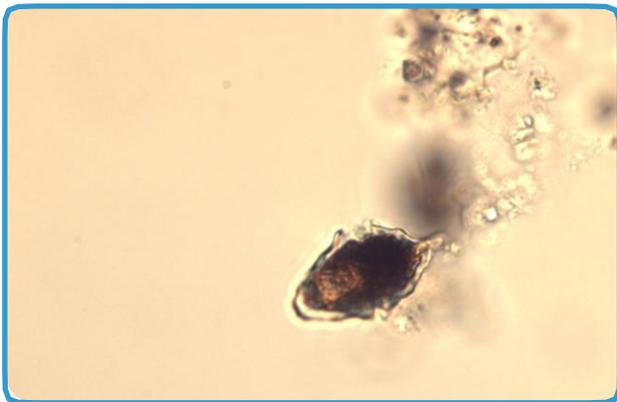


## IDENTIFICATION GUIDE:

# Dinoflagellates fact sheet



*Prorocentrum minimum*



*Heterocapsa triquetra*



*Heterocapsa triquetra* - Winter bloom

### Algal Group:

Pyrrophyta (Dinophyceae)

### Description:

Dinoflagellates are microscopic and single-celled. Each cell has two whip-like tails called flagellae that allow it to swim in a whirling motion. Sizes and shapes vary a great deal within the group.

### Habitat:

The species *Prorocentrum minimum*, *Heterocapsa triquetra* and *Katodinium rotundatum*, also known as “winter dinoflagellates,” are common in North Carolina’s brackish rivers and creeks when water temperatures are cold. They are found worldwide in temperate and tropical waters. They may turn water pink, orange, or brown.

### Significance:

All three species of winter dinoflagellates tend to grow at high concentrations (bloom) during winter and spring in North Carolina’s brackish coastal rivers in response to nutrient enrichment. Winter dinoflagellate blooms can cause water discoloration but are harmless. Problems with dinoflagellates are rare in North Carolina. Some freshwater species may cause a fishy or septic taste and odor problems. A few marine species can cause “red tides” that discolor large patches of water. The actual color of the red tide can range from red to reddish-brown to yellow. Red tides have occurred on almost all shores in North America. The only notable red tide off the North Carolina coast occurred during November 1987. This red tide was transported to North Carolina from Florida by the Gulf Stream due to a number of unusual weather conditions. Red tides are sometimes toxic. Humans can become ill from eating shellfish collected from affected waters.