GENERALIZED PLANKTON CLASSIFICATION

PHYTOPLANKTON:
I. KINGDOM MONERA: Single celled organisms without membrane-bounded nucleus, some in groups or chains
   A. Cyanobacteria: Blue-green algae, all autotrophic

II. KINGDOM PROTISTA: All Holoplankton, microscopic, mostly single celled organisms (Autotrophs / algae)
   A. Phylum Chrysophyta: Golden Brown and Yellow Algae, All Autotrophic
      1. Diatoms - important siliceous sediment contributors
      2. Coccolithophorids (Coccoliths) - important Calcareous sediment producers
   B. Phylum Pyrrophyta: single cells with flagella
      1. Dinoflagellates - not important sediment contributors, some are autotrophic and some heterotrophic, ~50% of the species fall into each category, usually considered phytoplankton

ZOOPLANKTON: All Holoplankton, microscopic, mostly single celled organisms (heterotrophs / protozoa)

II. KINGDOM PROTISTA: All Holoplankton
   A. Phylum Sarcodina - single cell organisms
      1. Foraminifera (Forams) - important calcareous sediment producers
      2. Radiolaria (Radiolarians) - important siliceous sediment producers

III. KINGDOM ANIMALIA:
   A. Phylum Arthropoda - paired, jointed appendages
      1. Class Crustacea (Crustaceans) Holoplankton Members:
         a. Copepods Both are herbivorous, not important sediment producers
         b. Euphausiids (Krill)
   B. MEROPLANKTON - Temporary Plankton from most other Phylums
(i.e. fish, clams, snails, crabs, barnacles, worms, lobsters, starfish, sea urchins)