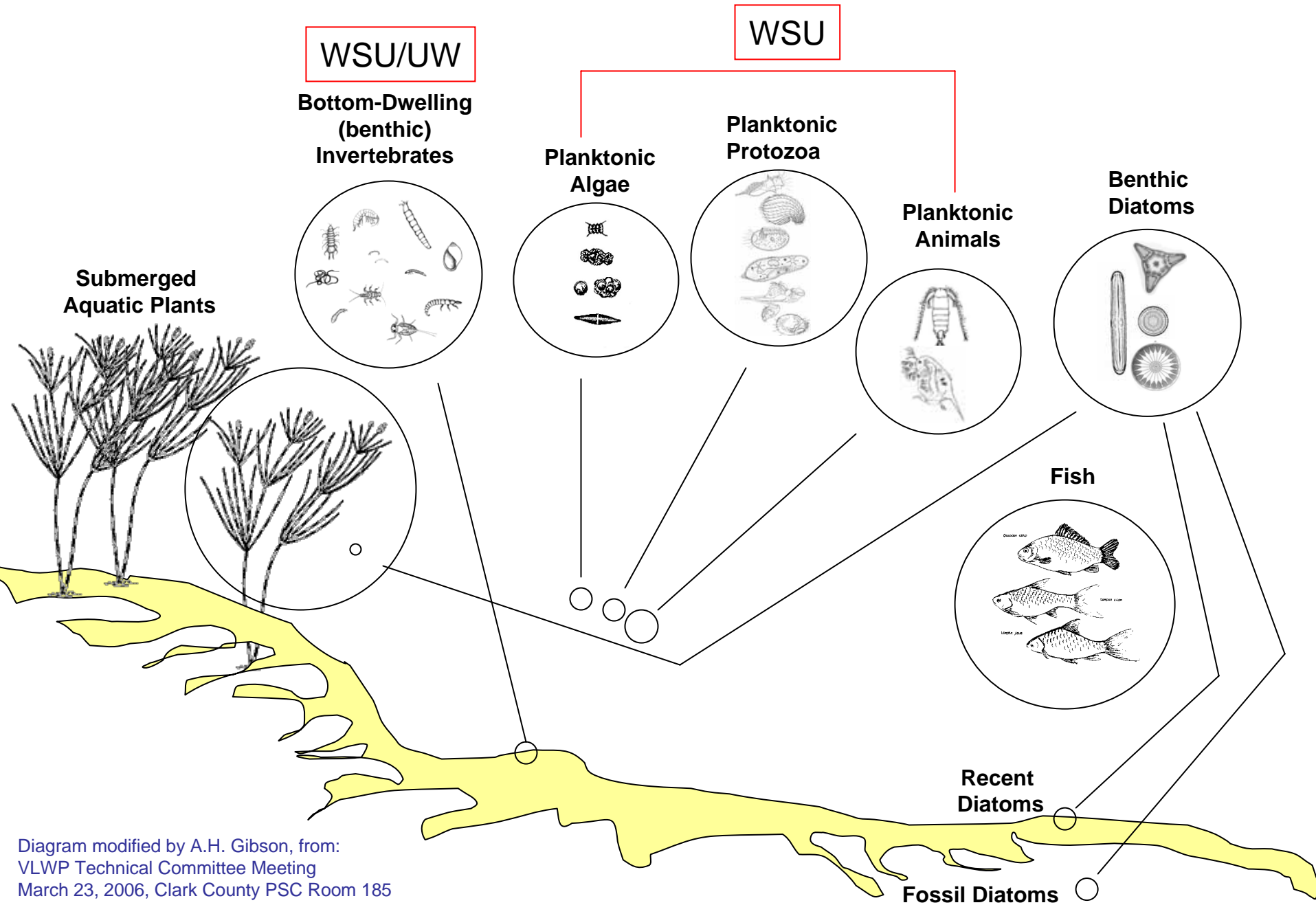


# Major biological components of Vancouver Lake needing analysis and summary:



# Size classifications of plankton

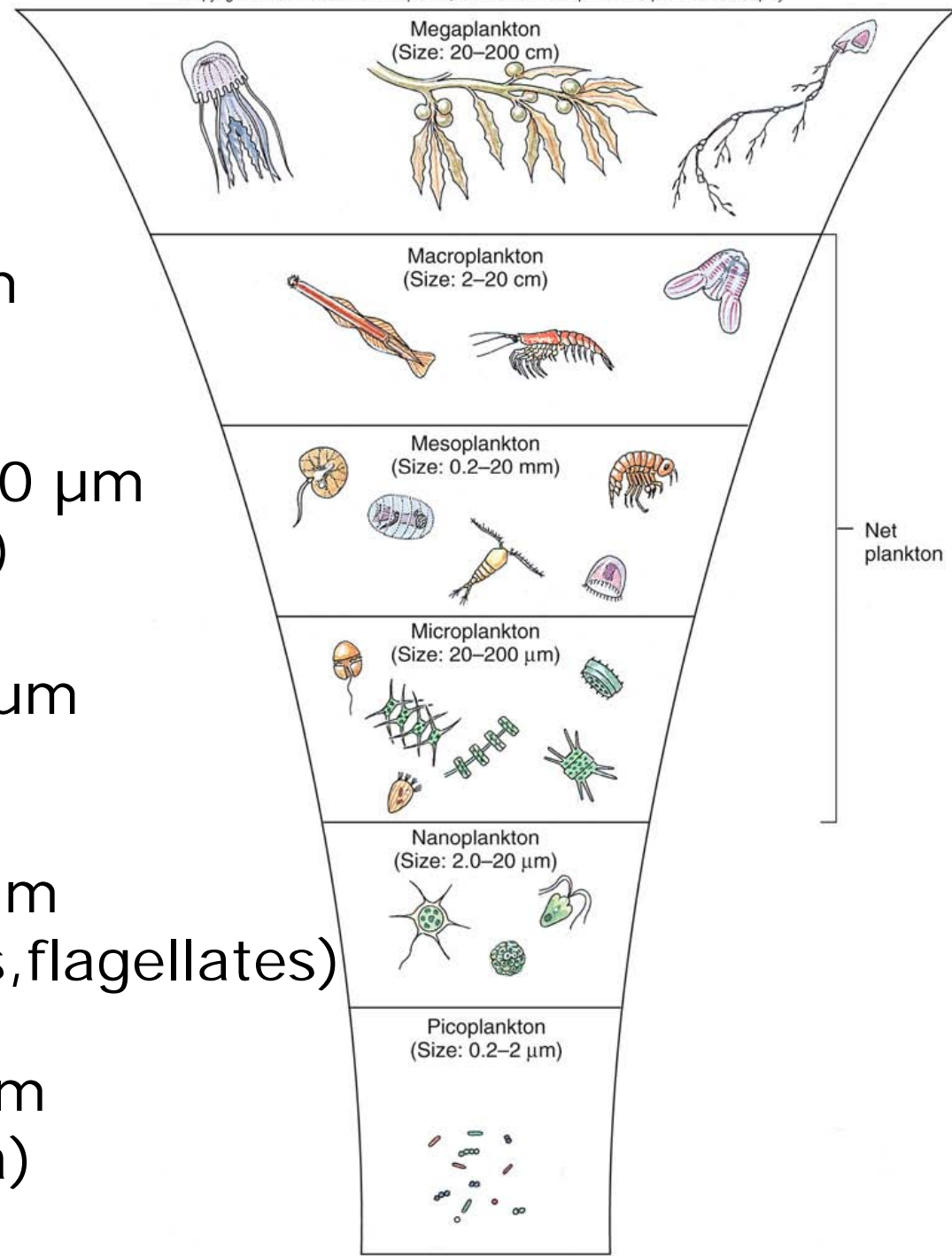
**Macroplankton:** 2 - 20 cm  
(insects, decapods)

**Mesoplankton:** 200 - 2000  $\mu\text{m}$   
(copepods, cladocerans)

**Microplankton:** 20 - 200  $\mu\text{m}$   
(ciliates, rotifers)

**Nanoplankton:** 2.0 - 20  $\mu\text{m}$   
(cyanobacteria, diatoms, flagellates)

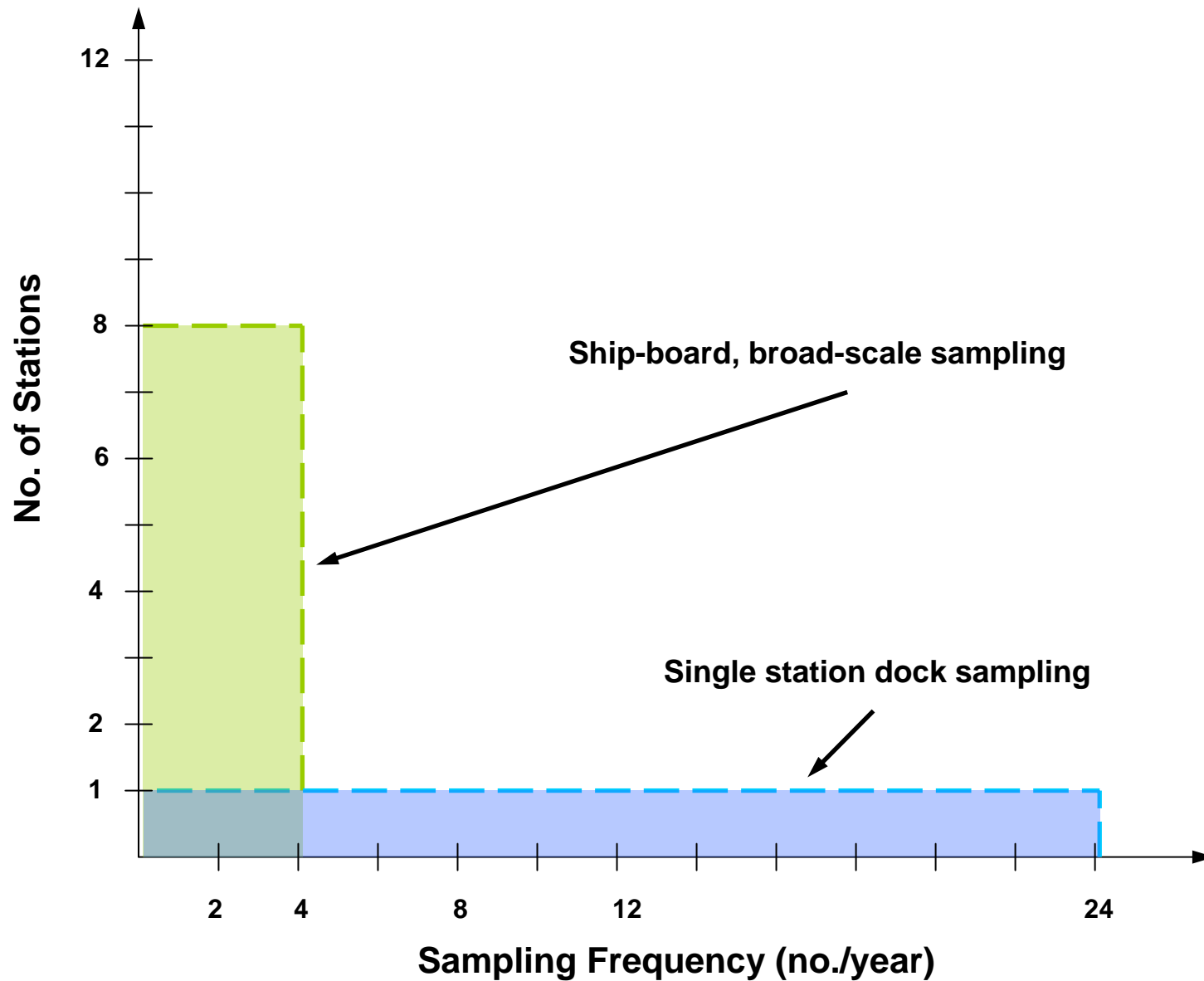
**Picoplankton:** 0.2 - 2.0  $\mu\text{m}$   
(bacteria, cyanobacteria)



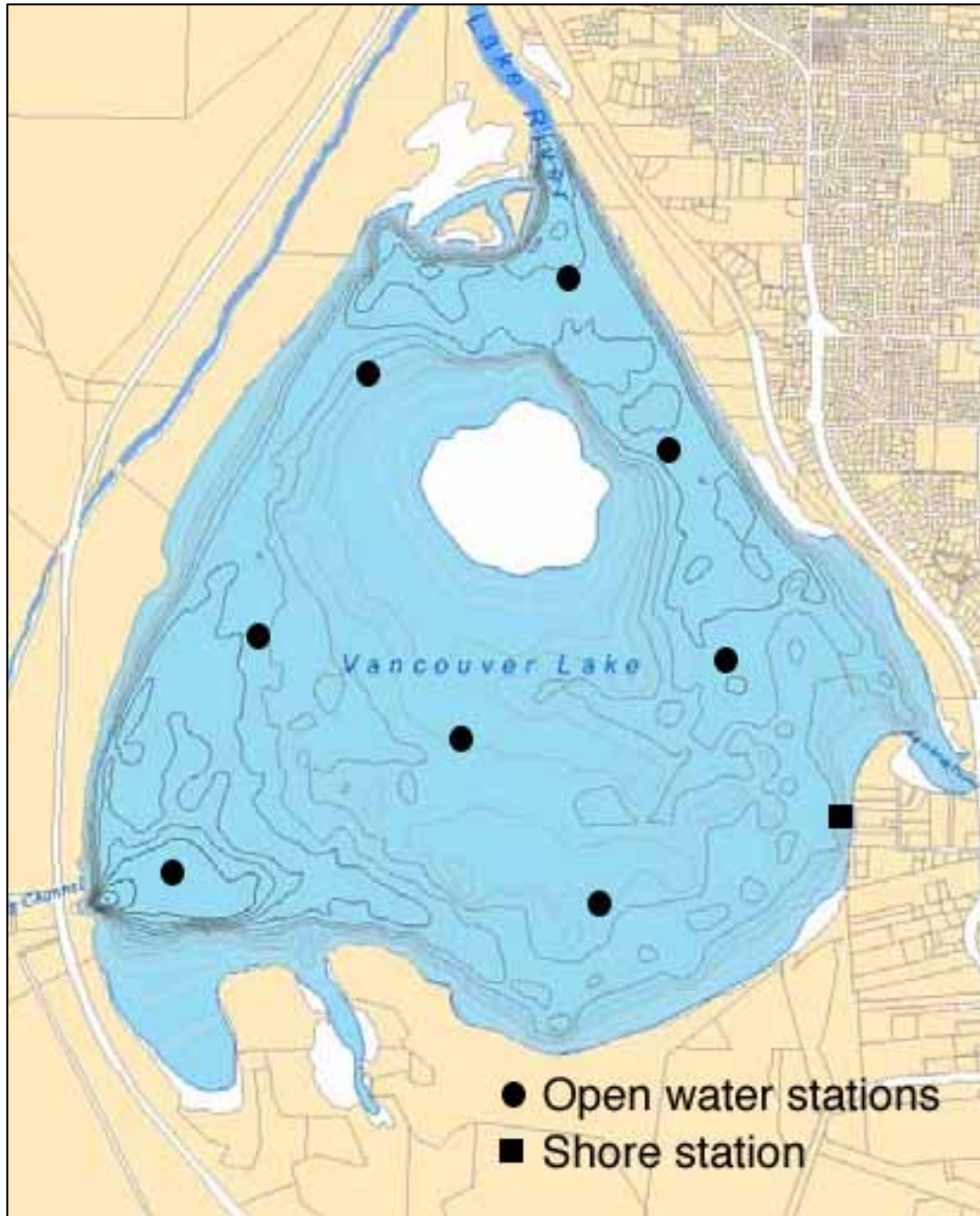
# **OBJECTIVES**

- 1) To determine the abundance, distribution and taxonomic composition of cyanobacteria in Vancouver Lake over a full annual cycle**
- 2) To initiate some preliminary investigations of the biotic (e.g., grazers) and abiotic (e.g., temperature, mixing) factors influencing these blooms**
- 3) In addition to performing our own field studies, we will analyze the extant data on cyanobacteria blooms in Vancouver Lake (e.g., Wierenga 2005) for spatial and temporal patterns and trends in abundance, as well as provide a literature review of plankton in other shallow lake ecosystems**

## Sampling Effort for WSU Components



# Proposed station locations in Vancouver Lake

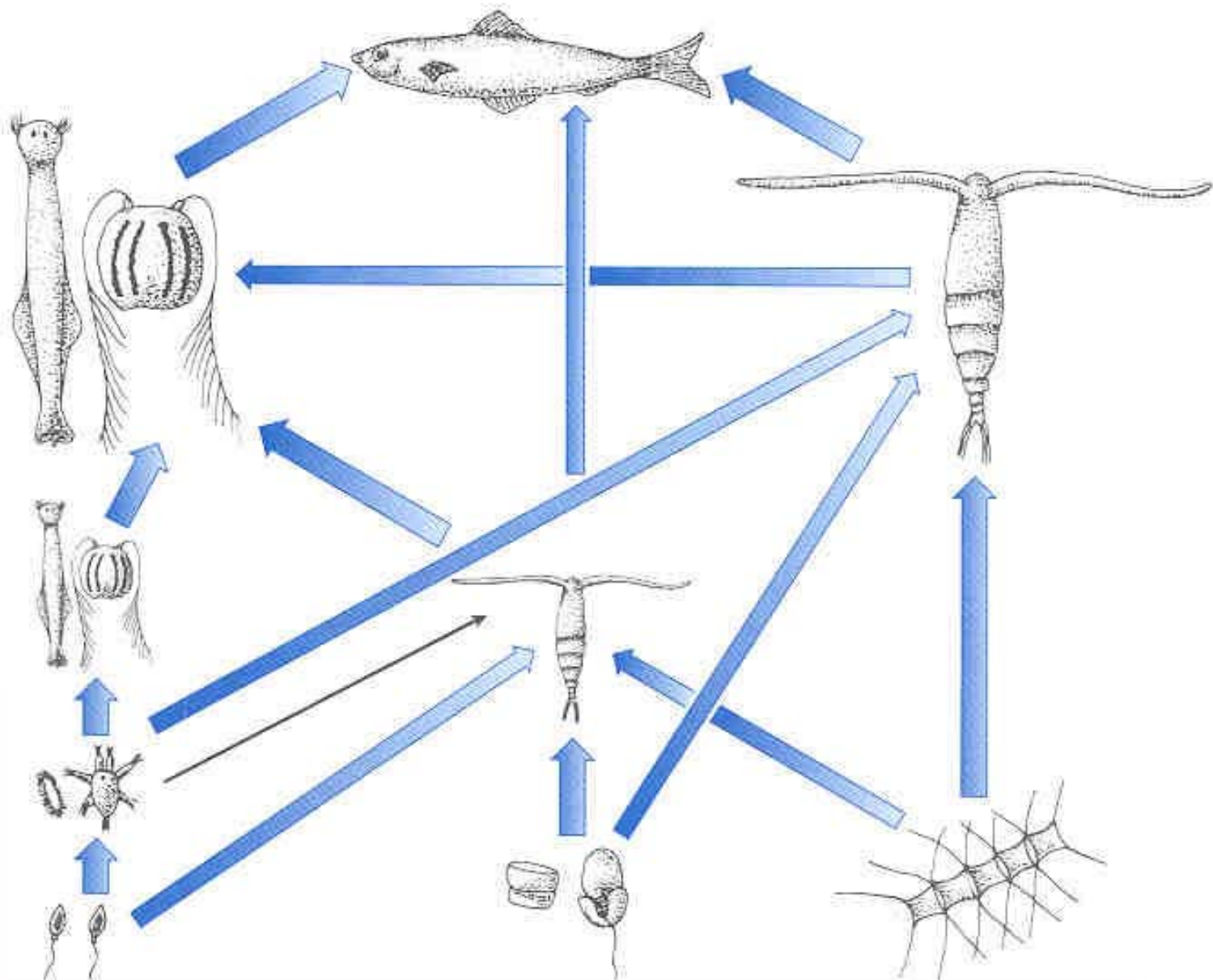


Filled circles indicate open water stations to be sampled **quarterly**.

Filled square indicates shore station to be sampled **bi-weekly**.

# WSU Vancouver's Aquatic Ecology Lab Group





# WSU Project Personnel

Steve Bollens, Ph.D., Professor and Director of Sciences, WSU Vancouver

Gretchen Rollwagen-Bollens, Ph.D., Assistant Clinical Professor, WSU Vancouver

Angela Gibson, M.Sc., Research Associate, WSU Vancouver

Rian Hooff, M.Sc., Research Associate, WSU Vancouver

Graduate Student, To Be Named, to pursue M.Sc. In Environmental Sciences

And others in our aquatic ecology research group of 12 people to help out as needed ....