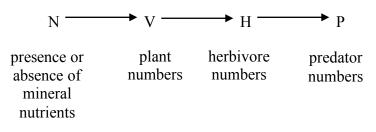
• bottom-up model – proposes a unidirectional influence from lower to higher trophic levels



• top-down model (trophic cascade) – proposes control comes from the trophic level above

 $N \longleftarrow V \longleftarrow H \longleftarrow P$

- biomanipulation can help restore polluted communities
- ex. adding pike to a Finnish Lake to control roach populations that were overeating zooplankton and causing the formation algae blooms.
 where the source of th