



**Figure 4**

Trophic strategy as a function of size. (a) Resource conditions [nutrients (*gray line*) and light (*black line*)] used to create environments moving from oligotrophic conditions (high light, low nutrients; *bottom*) to eutrophic conditions (low light, high nutrients; *top*). (b) Strategies that yield the highest resource encounter rates as a function of size (*x* axis) and resource conditions (*y* axis). (c) Trophic strategies of 3,020 marine organisms as a function of length. Ciliates and flagellates have been categorized as phototrophs, mixotrophs, or heterotrophs depending on the trophic strategy for the specific species (see **Supplemental Table 3**). The groupings comprise cetaceans (whales, dolphins, and porpoises), cartilaginous fish (Elasmobranchii and Holocephali), gelatinous zooplankton (Cnidaria and Ctenophora), cephalopods (Cephalopoda), teleosts (Osteichthyes), crustaceans (including copepods), meroplanktonic larvae (planktonic larvae whose adult stages are benthic), rotifers (Rotifera), and unicellular eukaryotes or prokaryotes.