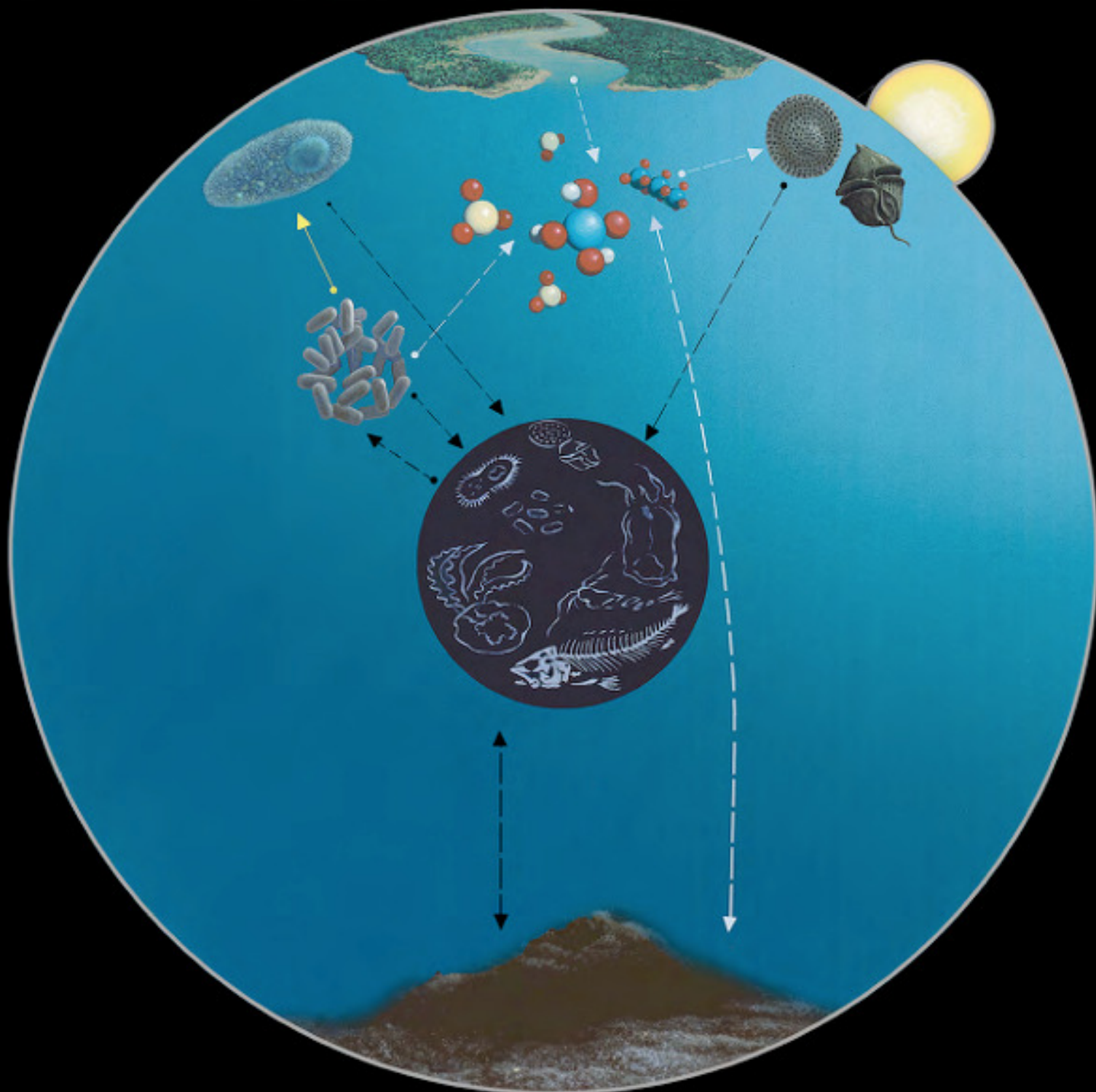


# Jellyfish and algal blooms

ferdinando boero  
university of salento - ciesm

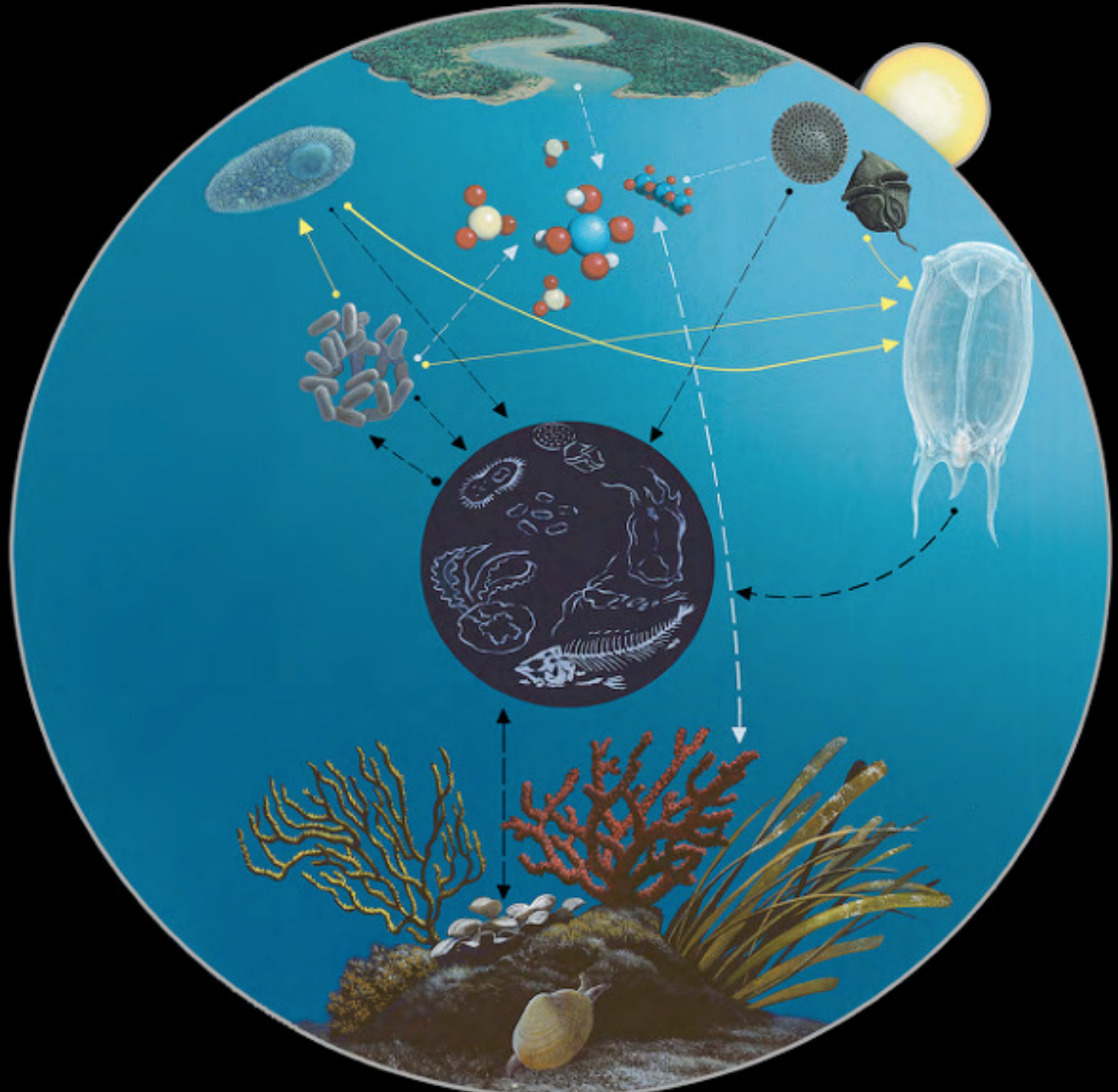
# THE MICROBIAL PATHWAY



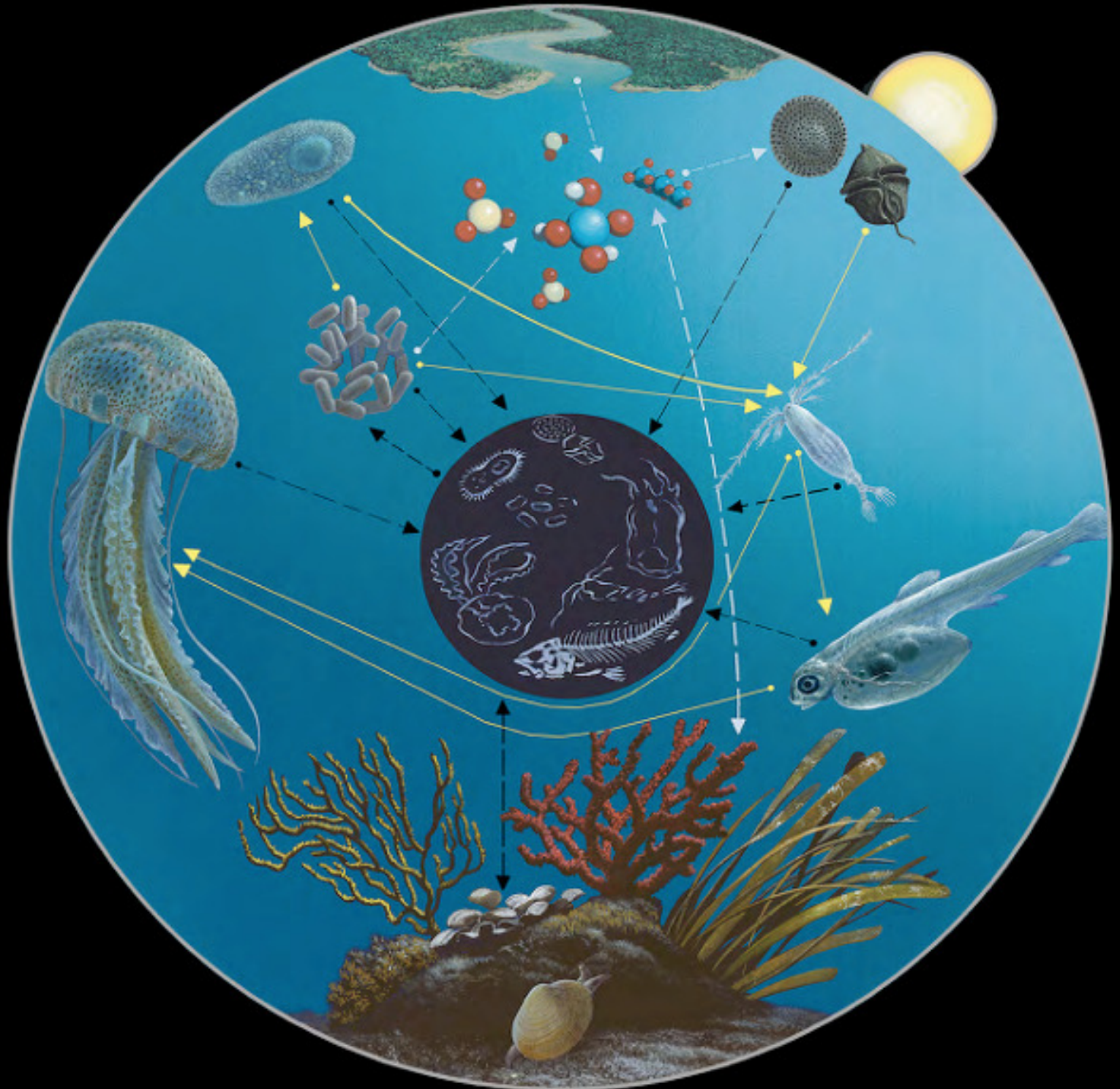
# THE CRUSTACEAN-FISH PATHWAY



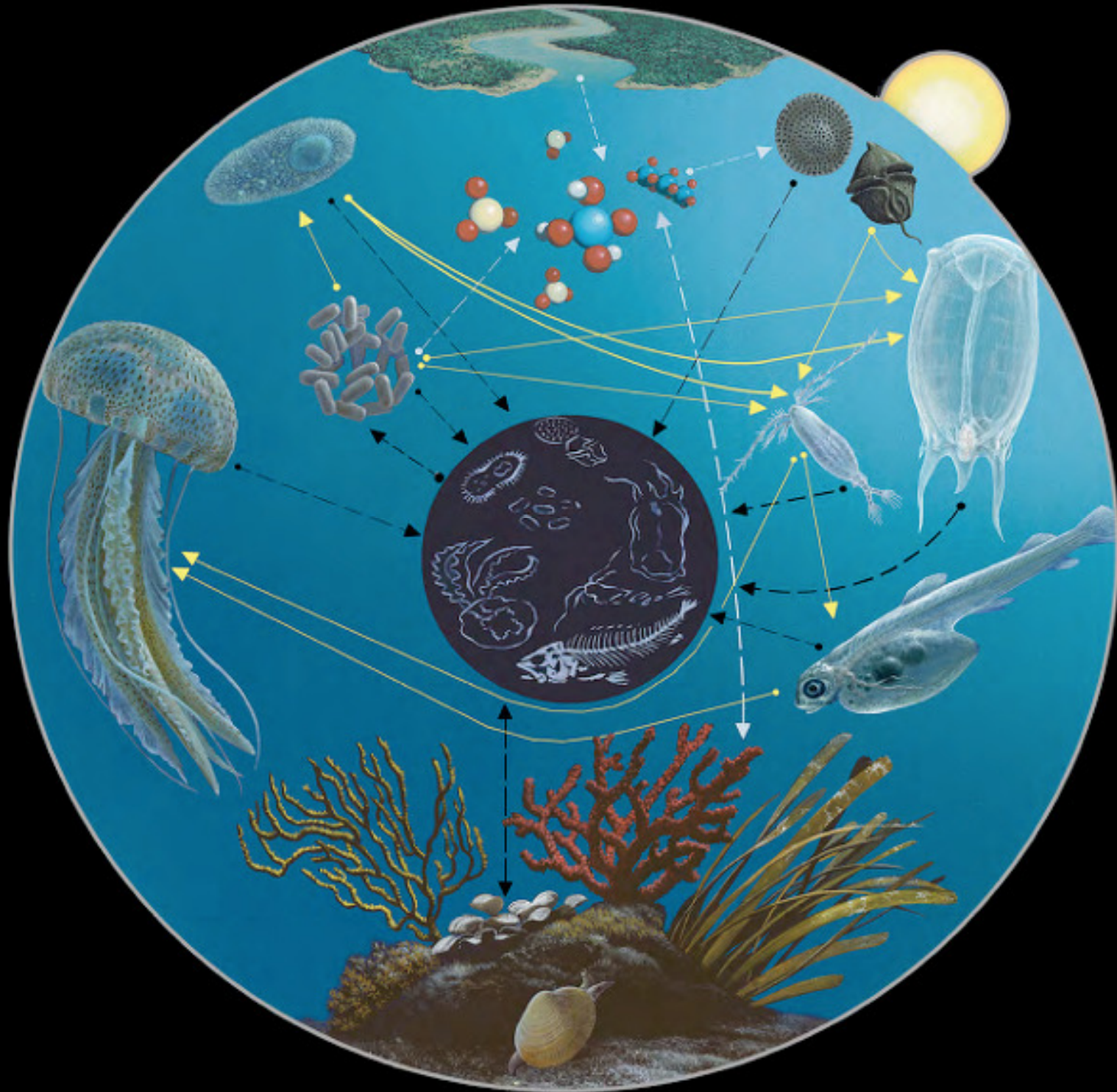
# THE HERBIVOROUS GELATINOUS PLANKTON PATHWAY



# THE CARNIVOROUS GELATINOUS PLANKTON PATHWAY



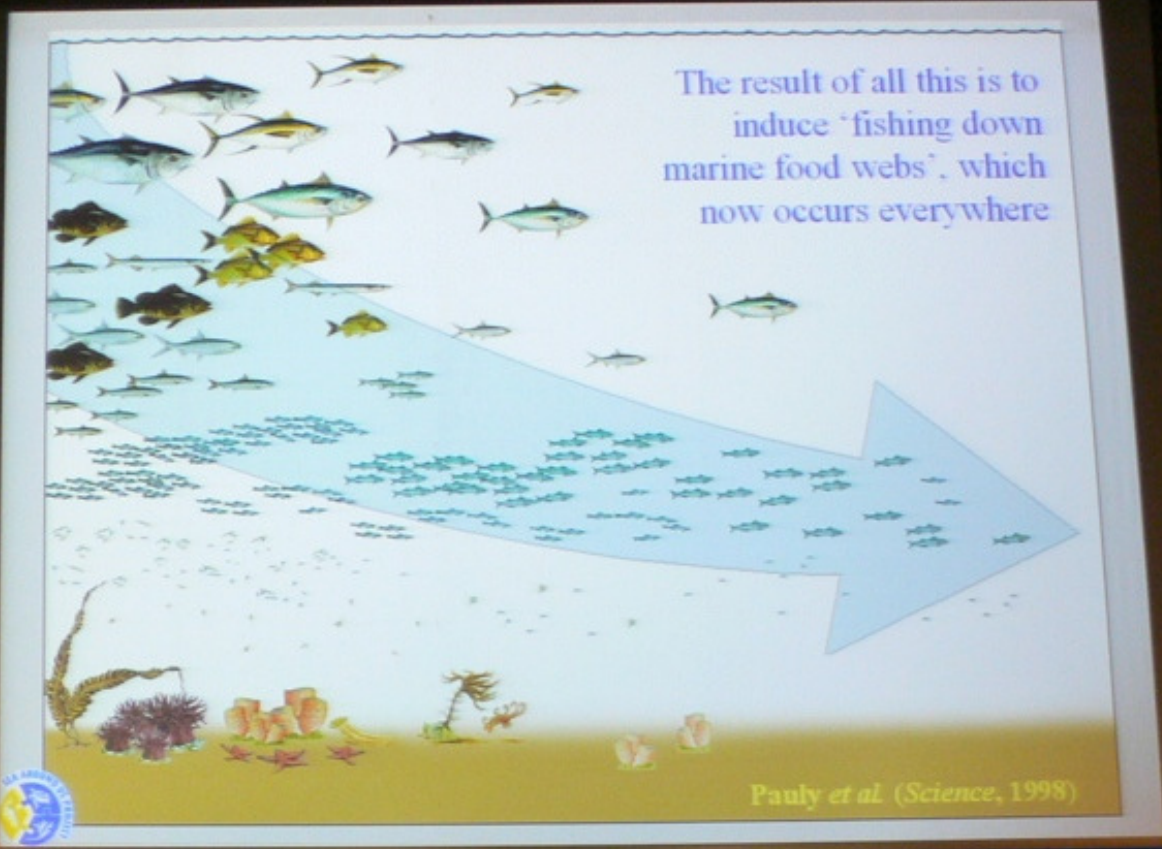
# THE WHOLE PICTURE



jellyfish are taking  
over (again)

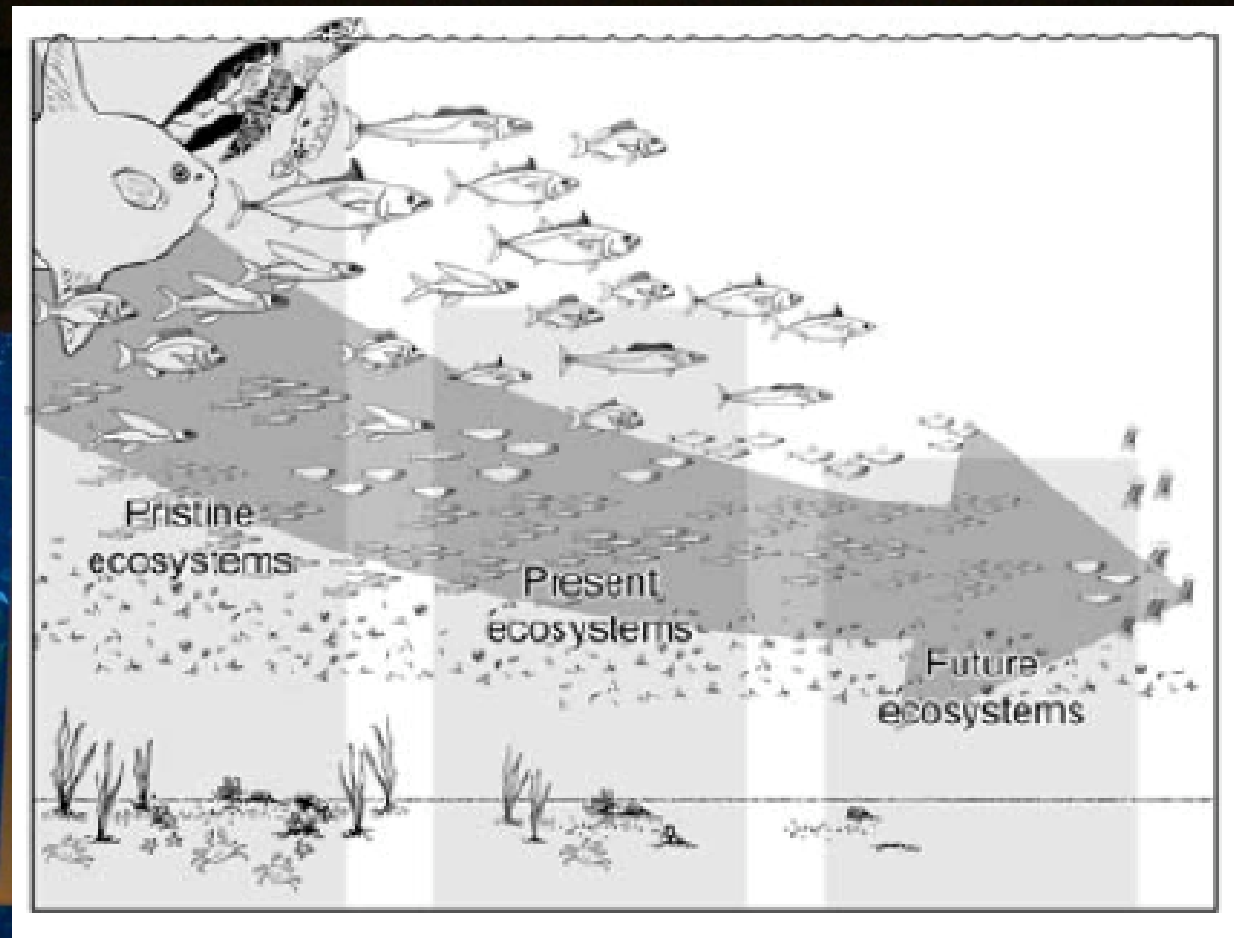
from a fish to a jellyfish ocean

# Fishing down the food web (Pauly 2003 Valencia-2008)



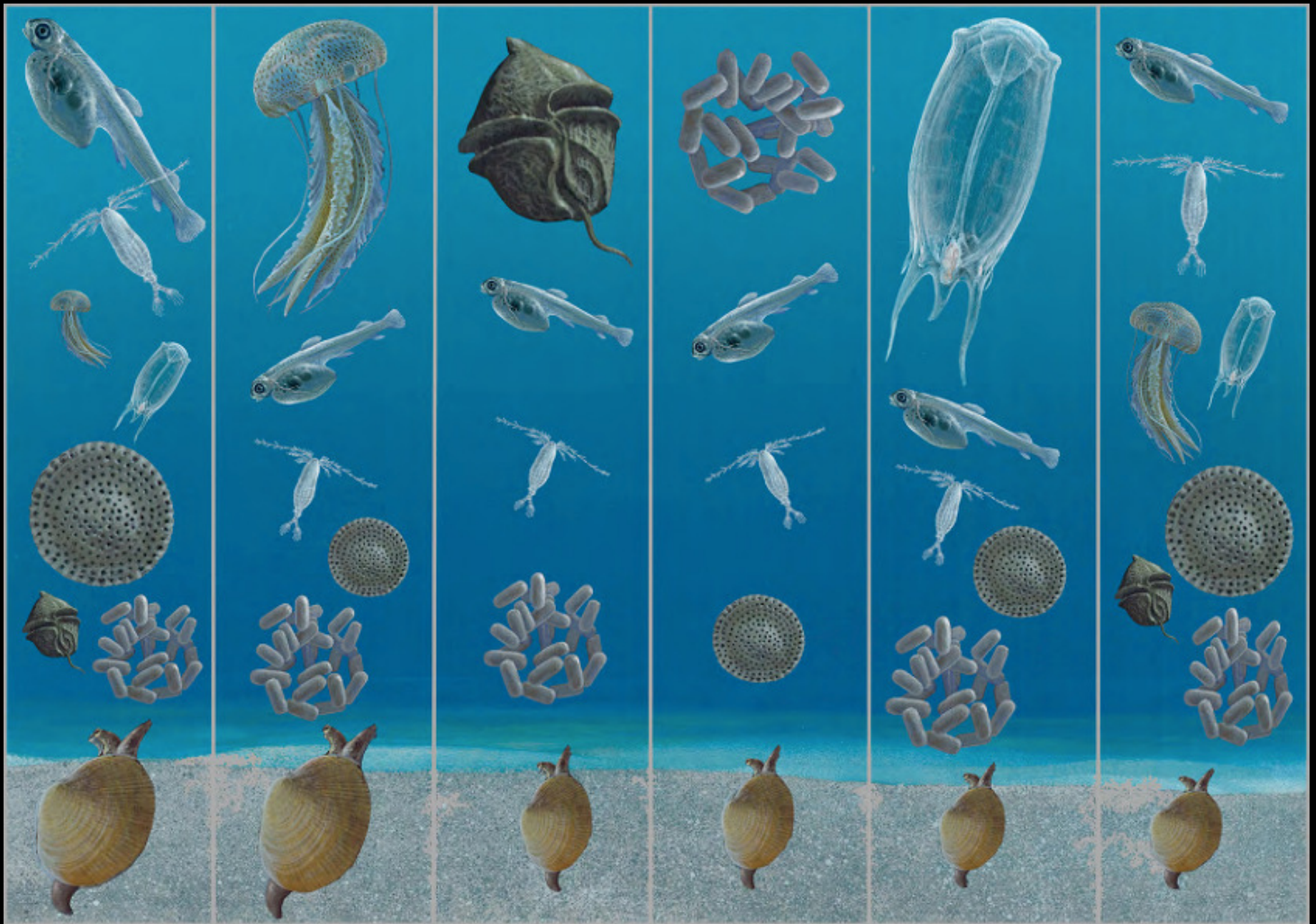


# Pauly a year later (2009)



but the future is now!: from  
a fish to a jellyfish ocean





history takes its toll



more and more  
jellies:  
why?

# on land

all goods we use derive from  
agriculture

we are not hunters and  
gatherers anymore

environments have been  
changed radically

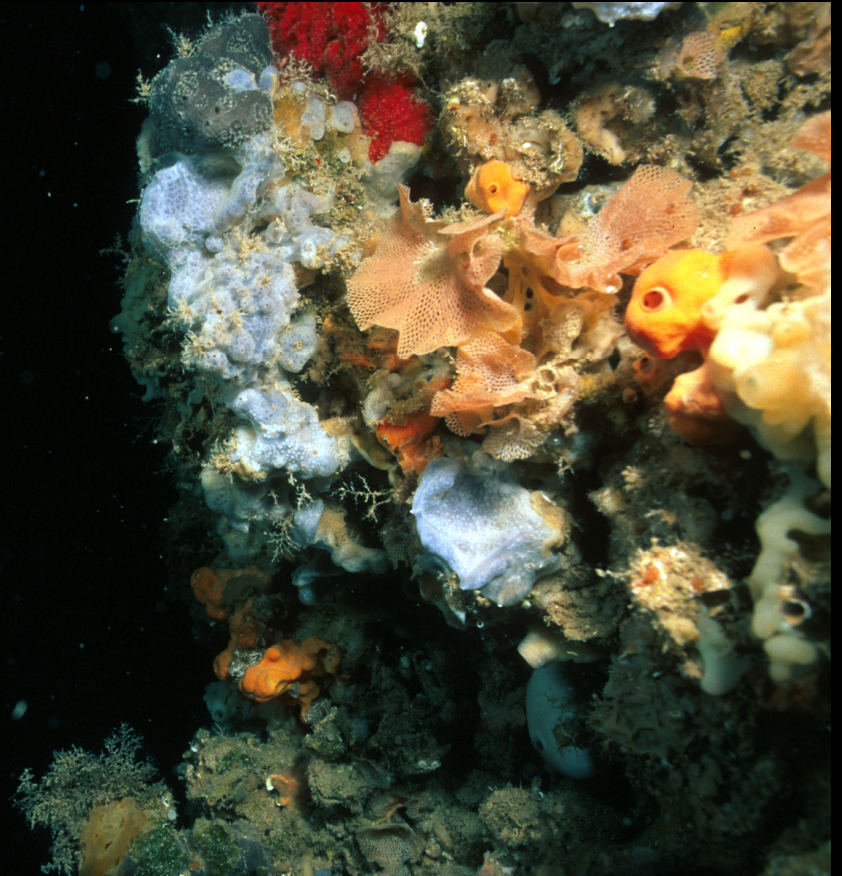


in the sea

environments are less altered

we still are gatherers and  
hunters

but for how long?



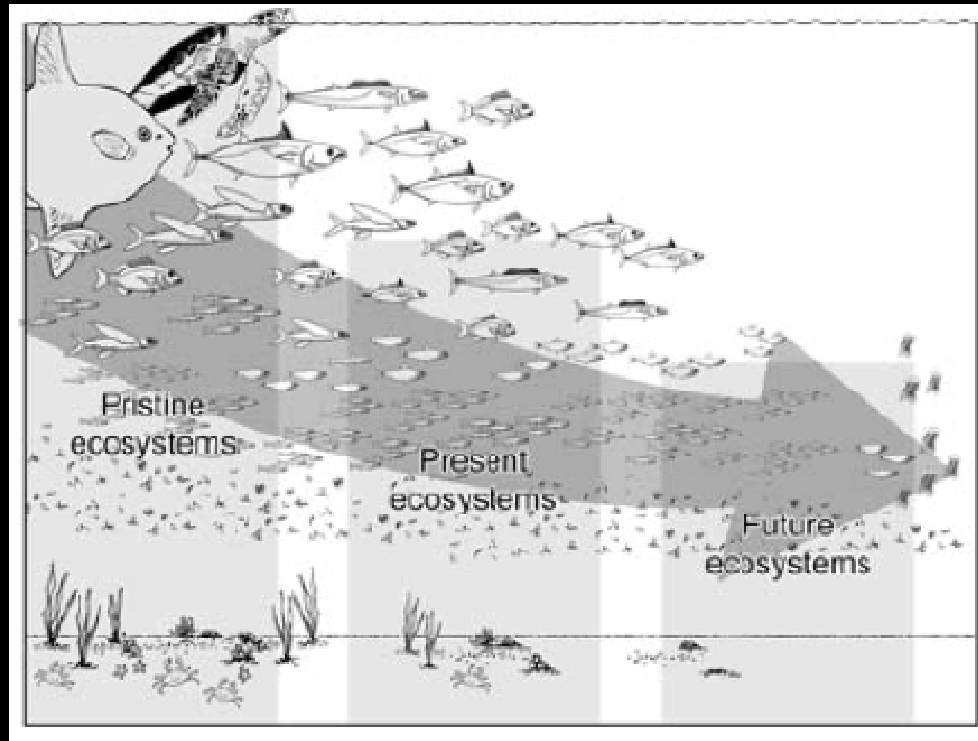
# kicked out from Eden

the forbidden fruit is the  
overexploitation of the garden

on land we went over the  
limit. The punishment is work:  
we had to shift from gathering  
and hunting to agriculture

in the sea we are shifting from  
fishing to aquaculture, and we  
are being kicked out from the  
last Eden





remove the fish, get the  
jellyfish!