(A)

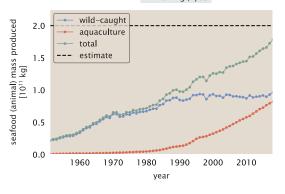
SEAFOOD MASS ESTIMATE

seafood mass,
$$m_{\text{seafood}}^{\text{(diet)}} \approx \frac{f \times 10^{-1} \text{ kg}}{\text{person} \times \text{week}} \times \frac{52 \text{ weeks}}{1 \text{ year}}$$

$$\approx f \times 10 \text{ kg / (person} \times \text{ year)}$$

$$\Rightarrow \text{global seafood mass, } m_{\text{seafood}} \approx \frac{f \times 10 \text{ kg}}{\text{person} \times \text{year}} \times 8 \times 10^9 \text{ people}$$

$$\approx f \times 10^{11} \text{ kg / year}$$



AQUACULTURE STOCK POPULATION

cultured carp

cultured shrimp

cultured clams & oysters



 $m_{carp} \approx f kg$ t_{mature}≈ 0.8 year

 $m_{_{shrimp}} \approx f \times \, 10^{\text{--}2} \; kg \ \ \, m_{_{shelled}} \approx f \times \, 10^{\text{--}2} \; kg$

t_{mature}≈ 0.5 year

t_{mature}≈ f years