

IMBeR West Pacific Symposium

CHANGING WEST PACIFIC
OCEAN: SCIENCE AND
SUSTAINABILITY

2021 Online
Event
11/22-25

Dried Small Fish

Ecology, Value Chains
and Nutrition



futurearth
research for global sustainability



Potential impact of predation by larval Spanish mackerel on larval anchovy in the central Seto Inland Sea, Japan
(Poster with context of *anchovy fisheries in Japan*)



Deguchi W, Fujita T, Yoneda M, Kono N,
Yamamoto M, Harada K, **Tomiyama T**



Japanese anchovy *Engraulis japonicus*



- Important for both fisheries and ecosystems
- Population dynamics relate to regime shift
- High demand for larval anchovy in Japan

Catch statistics in Japan

Year	Adults and juveniles	Larvae
2018	111.2 thousand tons	50.5 thousand tons
2019	130.1 thousand tons	59.9 thousand tons



- Adults and juveniles are used for dried products (22 thousand tons in 2018)

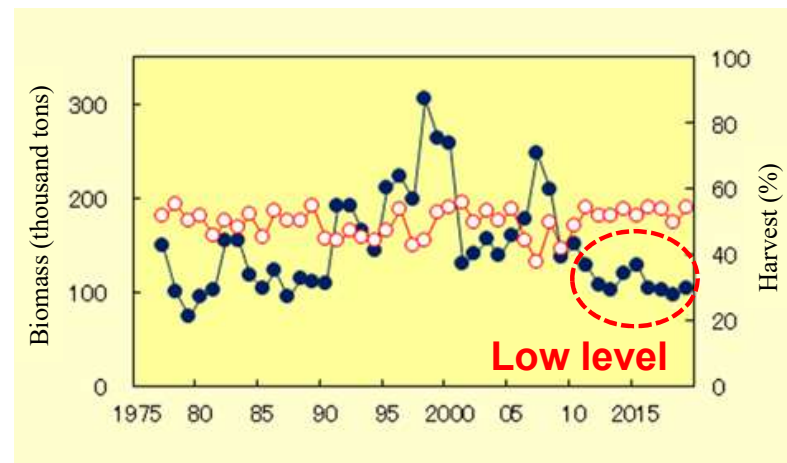
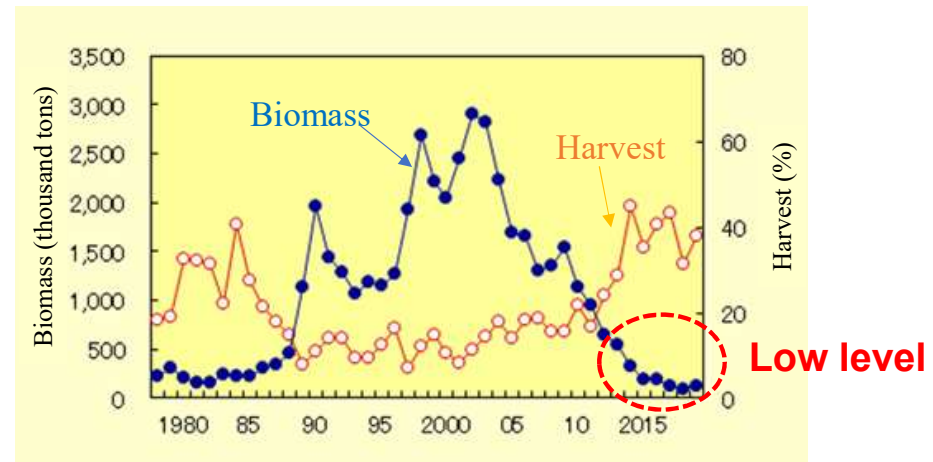
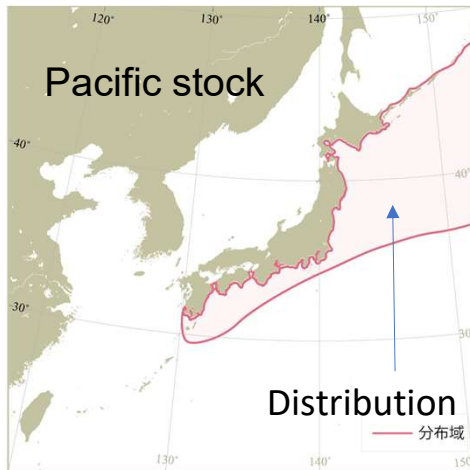


Used for soup of Japanese noodle (“*udon*”)

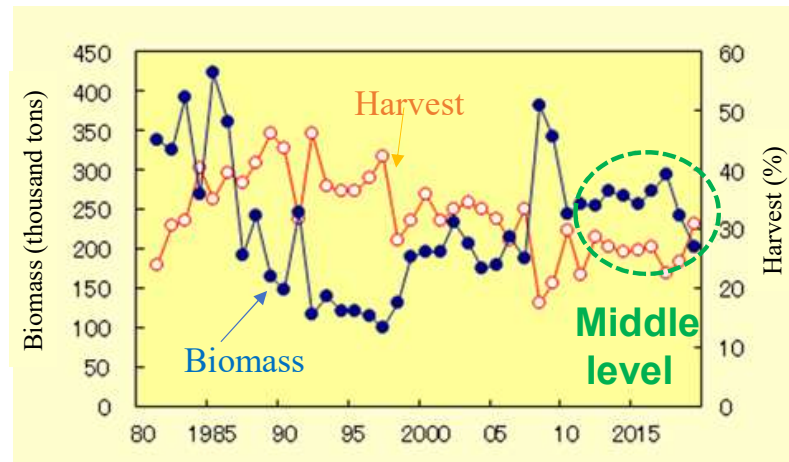


Stock assessment in Japan (2020)

→ 3 stocks for Japanese anchovy

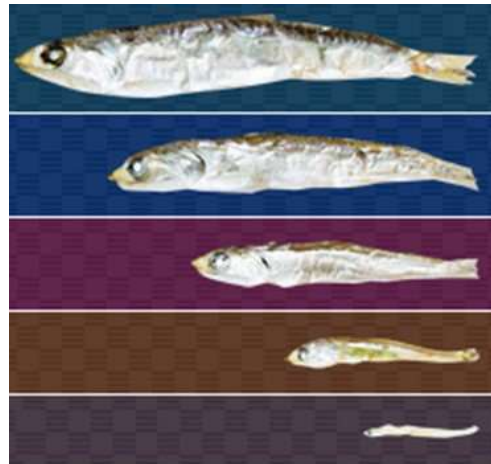


Seto Inland Sea stock



(Brand)

- Large >8 cm
- Middle 6-8 cm
- Small 4-6 cm
- Juvenile 3-4 cm
- Larva 1-3 cm

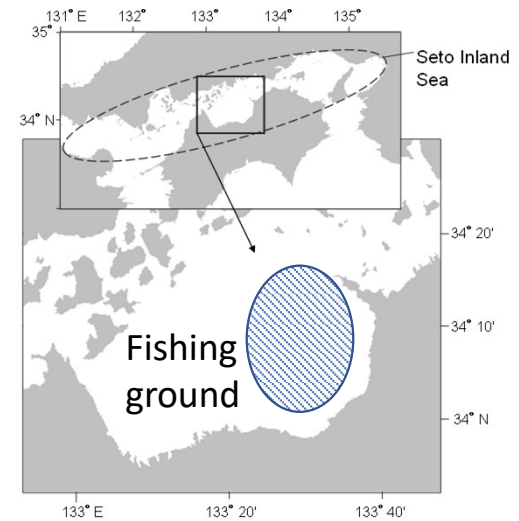


© 2013 Takata Kaisan

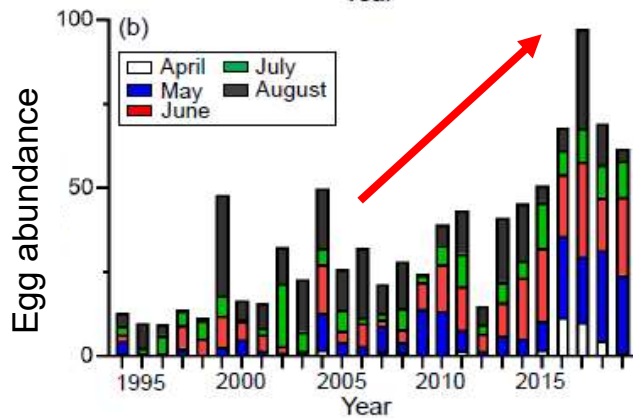
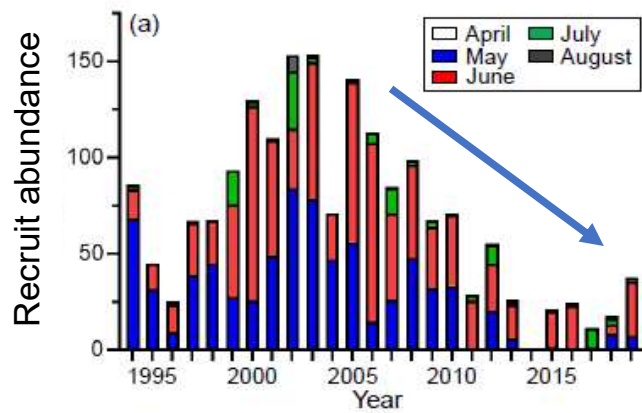
Used for soup



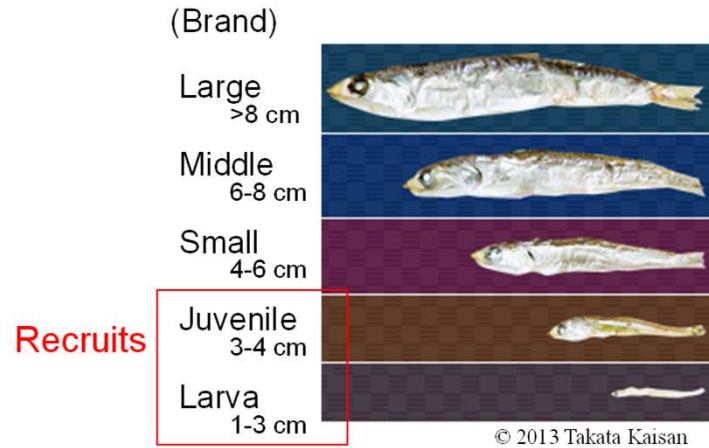
Snacks (almond and fish)



Decrease of recruits



Fujita et al. (2021) Fish Oceanogr



Competition for food?



Predation?

Poster

Reduced prey availability for anchovy
 → Low egg quality
 → High quality of dried anchovy!

Thank you for your attention!

