



The 11th International Abalone Symposium

27 February – 2 March 2023, Auckland, New Zealand

Progress and prospect for abalone industry in China

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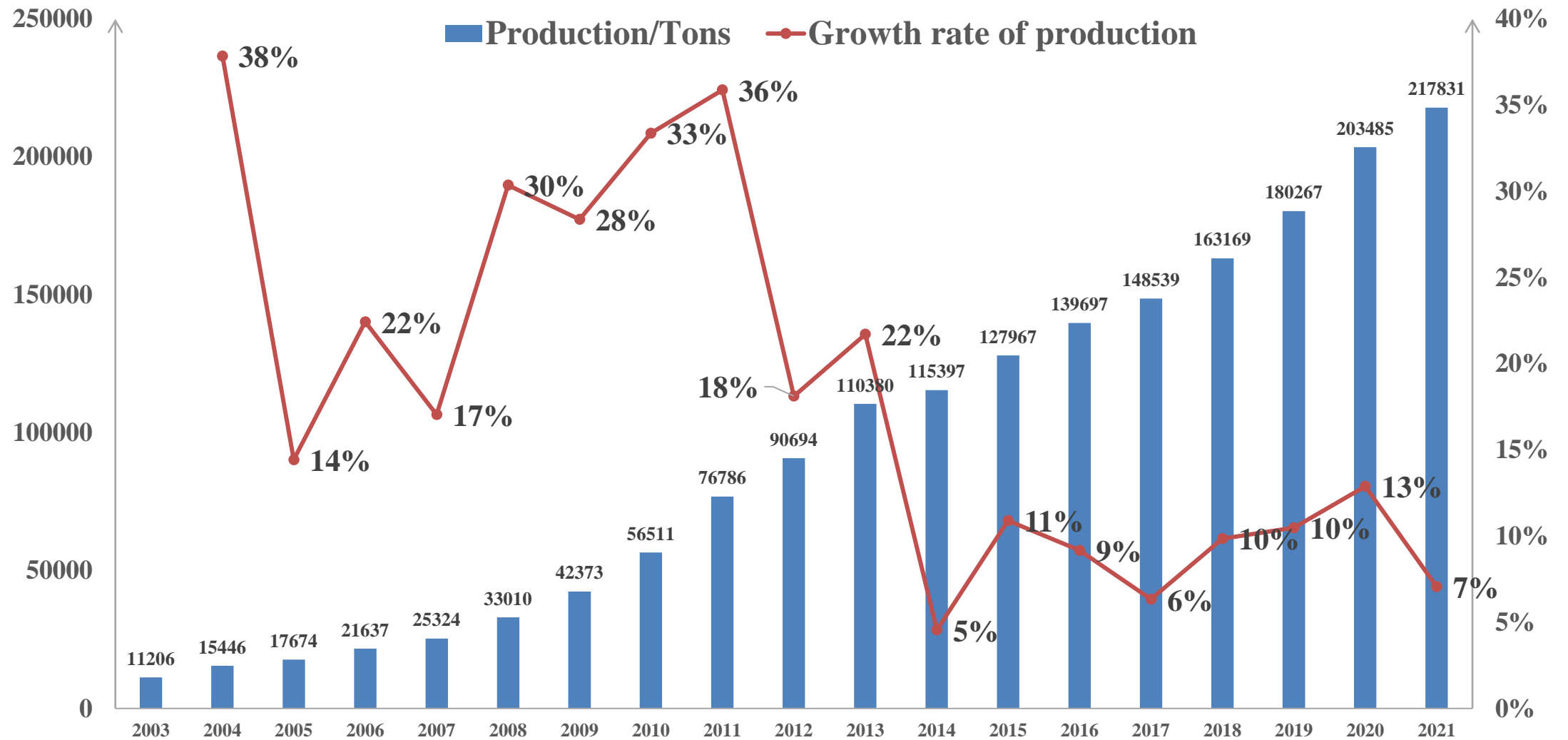


Abalone (*Bao Yu* 鲍鱼)

- Chinese ancients have exploited abalone for **thousands of years** with medical and nutritional value.
- Abalone is considered as a **desirable luxury** Chinese traditional food.
- China is the world **largest abalone producing and consuming** country.

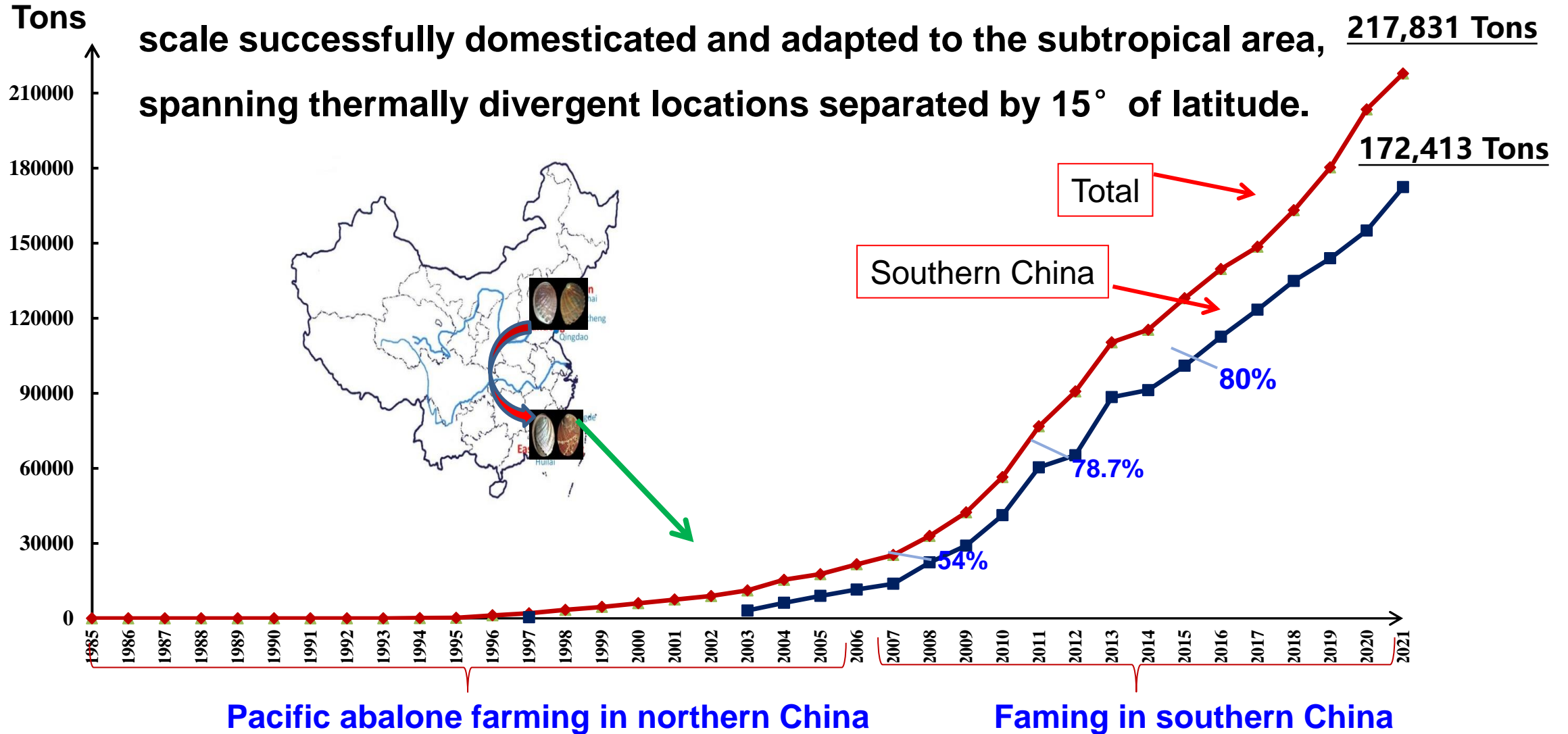


Abalone aquaculture production and growth rate



Abalone farming in China

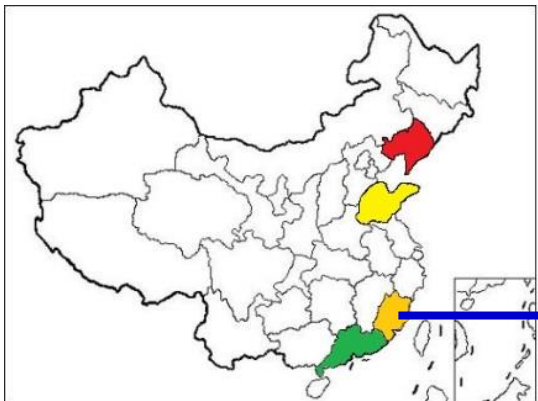
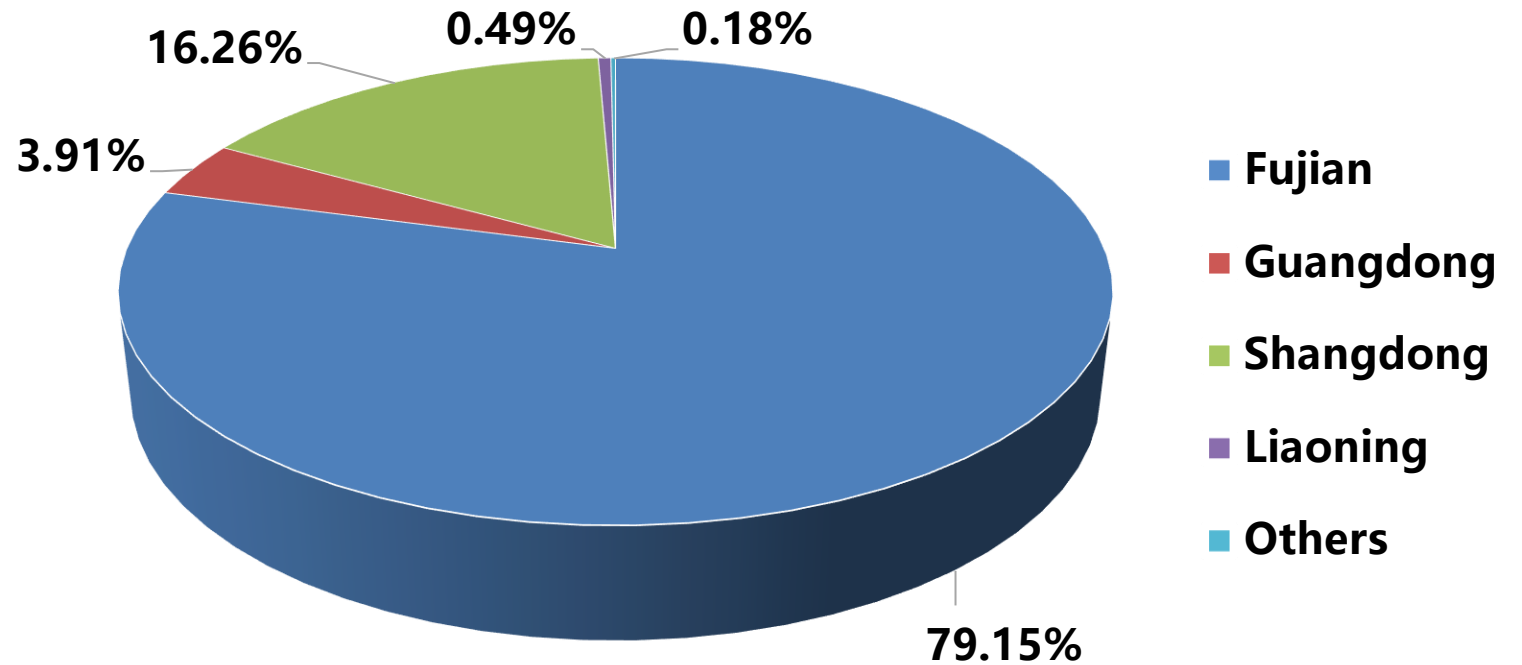
The temperate species **Pacific abalone, *Haliotis discus hannai***, is large-scale successfully domesticated and adapted to the subtropical area, 217,831 Tons spanning thermally divergent locations separated by 15° of latitude.



Abalone production in different provinces in 2021

The production was 218,000 tons, the value was 4 billion US Dollar.

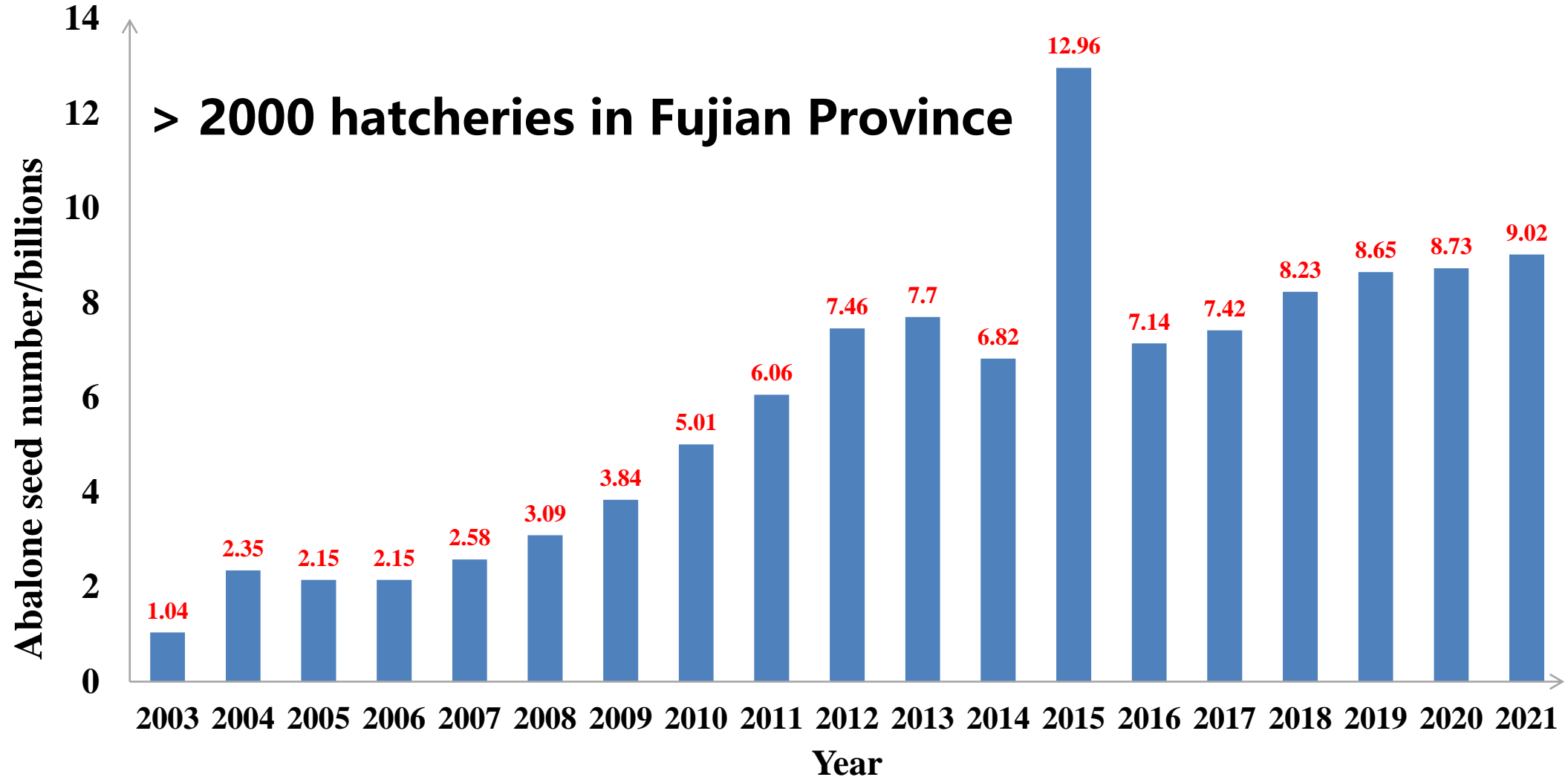
1% production vs 15% value in mollusc farming



Fujian

Data: China Fishery Statistical Yearbook 2022

Abalone seed number stabilized around 8 billions in last 5 years



Data: China Fishery Statistical Yearbook 2022

2018-2022 Live abalone price in Fujian Province

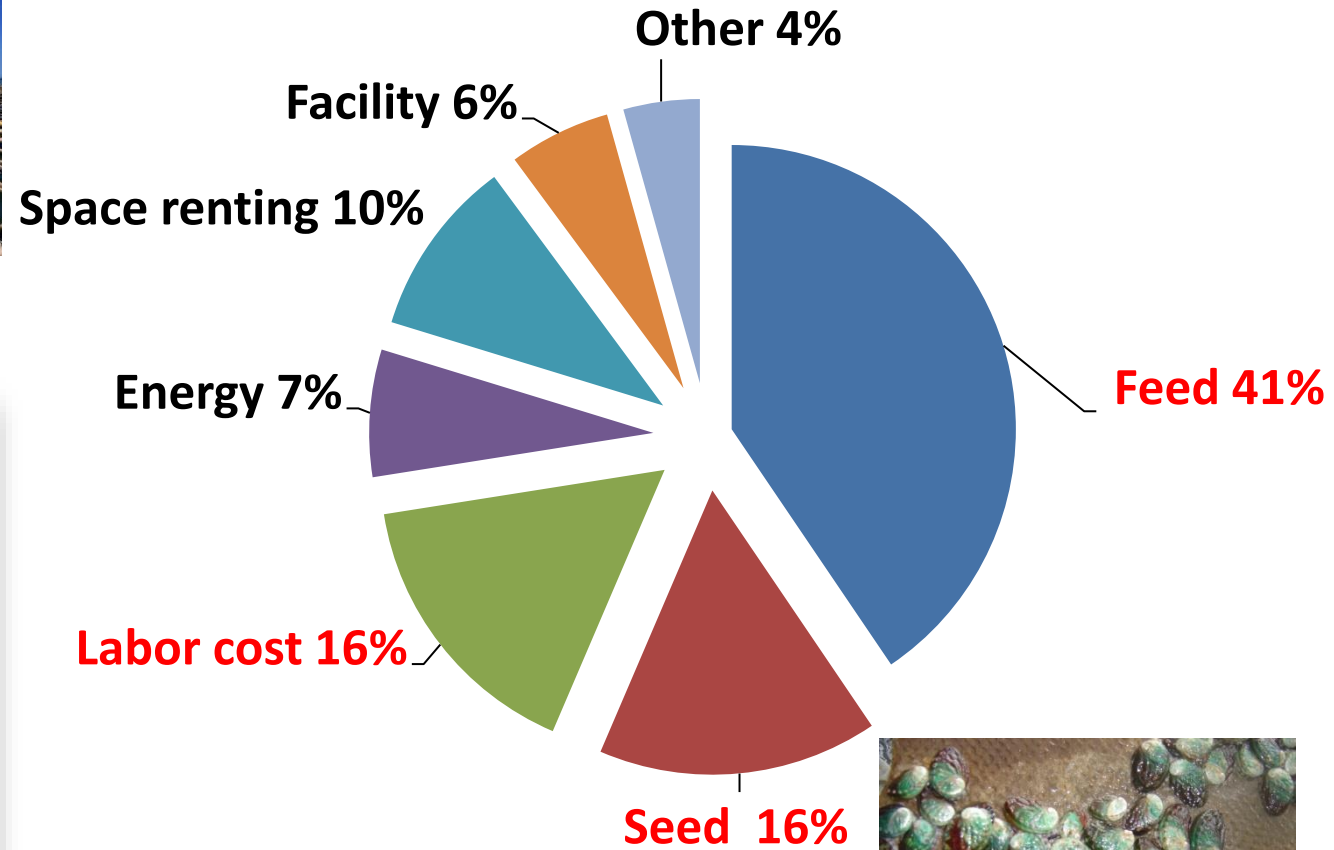
Unit: Yuan/kg; Size: 50g/piece

1 US Dollor ≈ 7 Yuan

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
2018	129	142	112	110	116	161	169	157	130	158	144	121	137
2019	102	108	114	116	94	102	104	86	104	118	106	108	105
2020	97	83	77	59	56	70	73	74	90	92	86	96	79
2021	80	66	72	71	73	75	78	81	86	83	81	97	78
2022	96	105	98	83	82	87	88	102	122	142	134	121	105

Source : Chinese Abalone Association

The Cost for the abalone culture



Abalone culture technology

Step 1: Hatchery and early juvenile (0-4 mm, 35-45 days)



Step 2: Intermediate rearing (4-15mm, 5 months)



Step 3: Sea-based Grow-out (> 50g/piece, > 18 months)



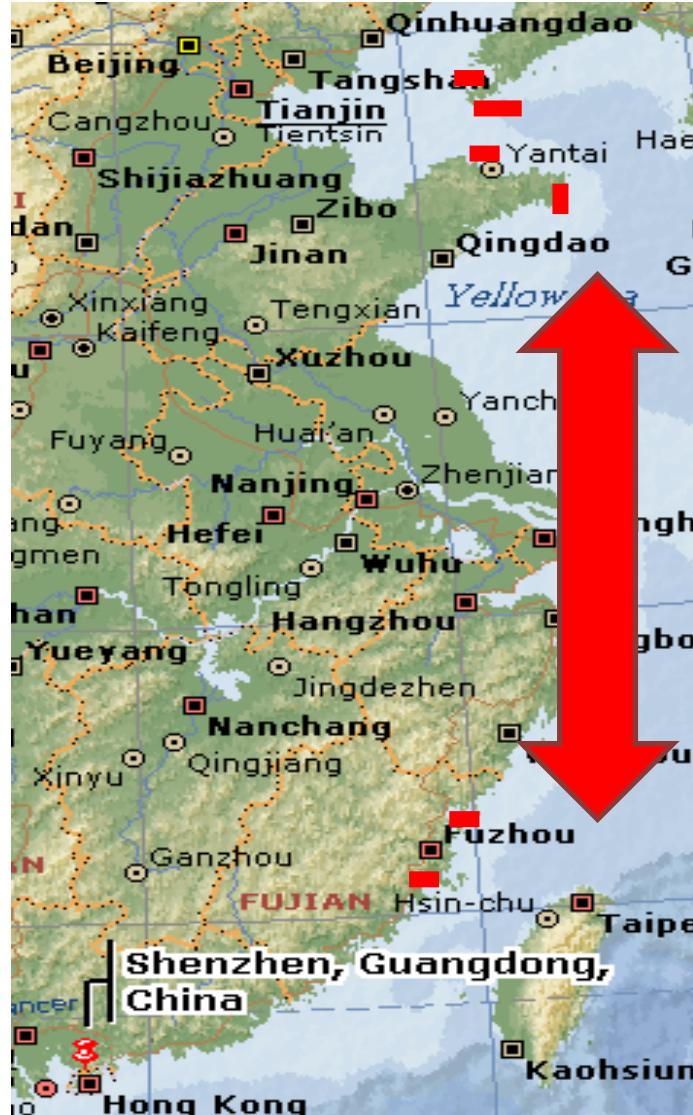
Facility upgrade and environment friendly culture



“South-North Relay” for Pacific abalone aquaculture

Winter: in Southern China (Fujian)

Summer: in Northern China (Shandong)



1800km



Offshore wind-wave resistant mechanized platform



- The raising and sinking of cages are powered by diesel and other appliances using solar or wind power.
- The structure can withstand typhoons of up to category 12, and the **annual output** of abalone is expected to be 40 tons.



Products forms and Sales

- ◇ Majority are sold live to market and many cuisines are developed



Irene Zhai: New technologies, new products and new trends in Chinese abalone processing
March 2nd 10:15-10:30

- ◇ Processed products are steadily increasing

- ◇ Utilization of by-products are sprouting



Frozen



Canned




Ready-to-Eat



Taurine

REVIEW

Transitions, challenges and trends in China's abalone culture industry

Xiaolong Gao^{1,2} | Mo Zhang^{1,2} | Xuan Luo^{1,2} | Weiwei You^{1,2} | Caihuan Ke^{1,2} 

- Gao X, Zhang M, Luo X, You W, Ke C. Transitions, challenges and trends in China's abalone culture industry. Review in Aquaculture. 2022, doi:10.1111/raq.12769.

Thank you!

