

Figure3. Percentage of catch quantity and value by every fishery in TAJIMA

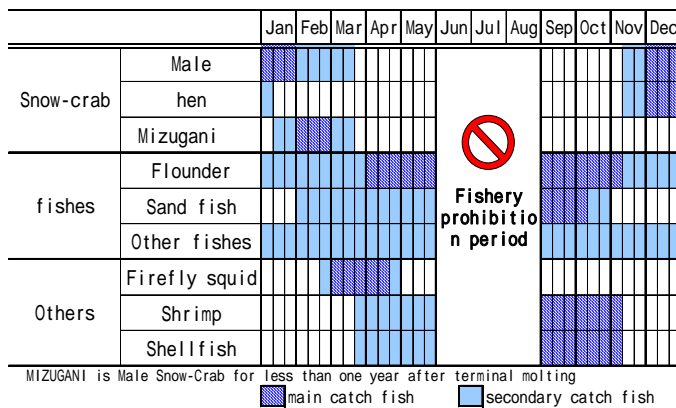


Figure 4. The operational schedule of offshore trawl fishery

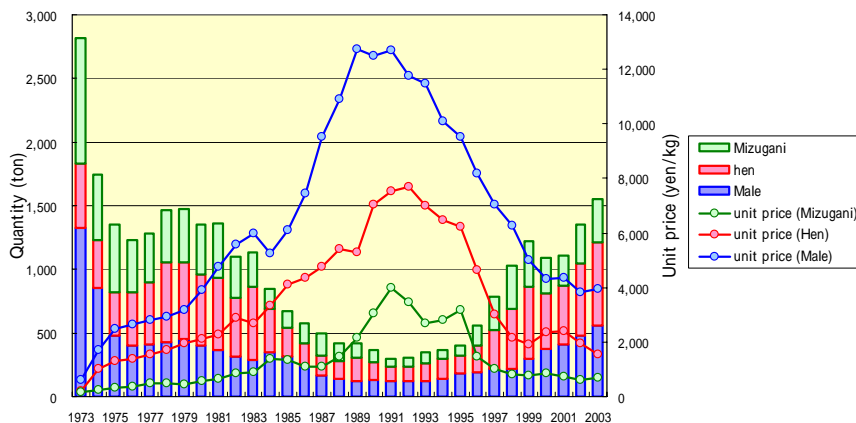


Figure 5. Production quantity and unit-price of snow-crab in Tajima

( Fig.3 ). But the number of the operation boats of offshore trawl net fishery is decreasing sharply in recent years, reduced by half during these 30 years.

The offshore trawl fishery is performed from September to May ( Fig.4 ). The fishing season of the snow crab is in May. And the removal-of-the-ban season of the snow crab fishery, which is the prime fish of this fishery is from November 6 to March 20. During this period, a snow crab is caught intensively, and at time other than this, flounder, sand fish, shrimp, firefly-squid are caught.

Figure5 shows the transition for these thirty years of catch quantity and average-unit-price of snow crab in Tajama. About the catch quantity, it decreased sharply from the middle of the 80s, but since the effect of control for resources management, it was recovered from the middle of the 90s. The tendency for an average unit price is in inverse relation to the products quantity. In this figure, it has classified into **Male, Hen, MIZUGANI**. A remarkable differential is seen among these. In addition, "MIZUGANI" is Male snow crab for less than one year after terminal molt. The market valuation of MIZUGANI is low, because filling is not good.

### 3. Interactive information system and functions

Figure6 shows the image of the system. The information reported to fishery-coop from each fishing boat by radio or telephone is collected in the server center. The PC set up at each fishery cooperative association is connected to the Internet, and this information can be seen freely using PC. Moreover, fisherman or market brokers in Tajima, can be seen a part of information using the Internet or a cellular phone.

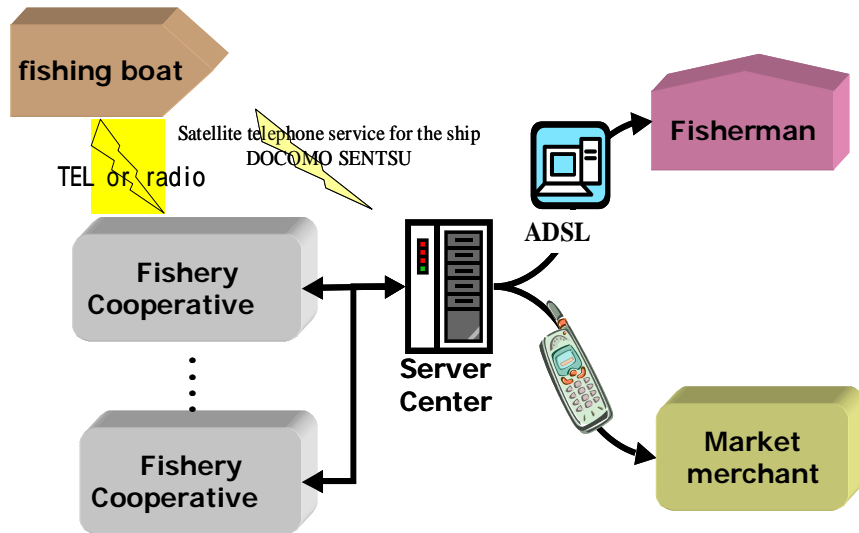


Figure 6 Interactive information System

Figure7 shows the four functions in this system.

<b>Guidance for fishing place</b>	Record fishing place information, and provide fishermen with useful information.
<b>Guidance for selecting landing port</b>	Collect the reports of the expected arrival information, and provides fishermen and market brokers with this information.
<b>Market information</b>	Provide the market price information and prediction price of main fish.
<b>Adding product information</b>	Program system for writing individual product information to IC Tag.

Figure 7 Four Function of system



Fishery cooperative association	Month	seasonal tendency	Adjustment by the accumulate quantity for the past seven days
Tsuiyamakou	NOV	$y = -0.0466x^3 + 9.6613x^2 - 270.91x + 4997.4$	$y = -0.0527x + 418.72$
	DEC	$y = 0.0632x^3 - 2.4263x^2 + 103.78x + 3216.8$	
	JAN	$y = -0.5908x^3 + 30.17x^2 - 442.52x + 5819.5$	
	FEB	$y = 0.558x^3 - 26.609x^2 + 266.97x + 3804$	
	MAR	$y = -0.5152x^3 + 4.726x^2 + 76.789x + 2330.2$	
Sibayamakou	NOV	$y = -0.3917x^3 + 19.113x^2 - 266.71x + 4865.2$	$y = -0.0573x + 337.18$
	DEC	$y = -0.1801x^3 + 4.0089x^2 + 121.41x + 4380.2$	
	JAN	$y = -0.3407x^3 + 23.661x^2 - 436.13x + 7151.$	
	FEB	$y = 0.3104x^3 - 11.38x^2 - 1.9996x + 5362.5$	
	MAR	$y = -0.6499x^3 + 11.136x^2 + 23.018x + 2681.1$	
Kasumichou	NOV	$y = -0.3731x^3 + 16.673x^2 - 218.71x + 4614.9$	$y = -0.0158x + 37.957$
	DEC	$y = -0.7266x^3 + 31.209x^2 - 252.9x + 4427.4$	
	JAN	$y = -0.3659x^3 + 27.84x^2 - 507.74x + 6029.6$	
	FEB	$y = 0.4867x^3 - 19.903x^2 + 184.46x + 4378.5$	
	MAR	$y = -1.4999x^3 + 40.137x^2 - 335.29x + 4660.4$	
Hamasakachou	NOV	$y = 0.4288x^3 - 18.565x^2 + 242.54x + 3024.1$	$y = -0.0352x - 101.87$
	DEC	$y = 0.0538x^3 - 10.315x^2 + 386.95x + 3306.5$	
	JAN	$y = -0.0839x^3 + 18.496x^2 - 527.86x + 7792.4$	
	FEB	$y = -0.4944x^3 + 20.031x^2 - 235.15x + 4551.7$	
	MAR	$y = -0.1863x^3 - 5.8262x^2 + 145.2x + 2738.7$	

## 5. Adding production information research

### (1) Research method

Finally, I explain the research method of the influence that Adding product information to products has on a consumer ( Fig.9 ).

Fishery cooperative association staff records product information in IC tag, by using expected arrival information. And sale crabs with IC tag at fishery market. At stores or tourist homes, we display information in IC tag to customers, and carries out a questionnaire survey about IC tag. Then, we analyze questionnaires.

Figure10 is machineries used for this experiment. Considering about the characteristic of the use of snow crab, we selected the IC tag, which is excellent in water resistance and heat resistance.

### (2) Questionnaire result

Here, I introduce a part of consumer questionnaire result.

Figure11 is the result of the question about valuation for IC tag. Respondents who answer that IC tag is good for eating at ease accounted for about 80% of the total. On the other hand, the respondents who answer it's good for getting goods information or fisherman information was as low as 20% or less.

That is, the consumer expects sense of security rather than actual information for IC tag. That is, a consumer can say that he is asking IC tag for sense of security from concrete goods information.

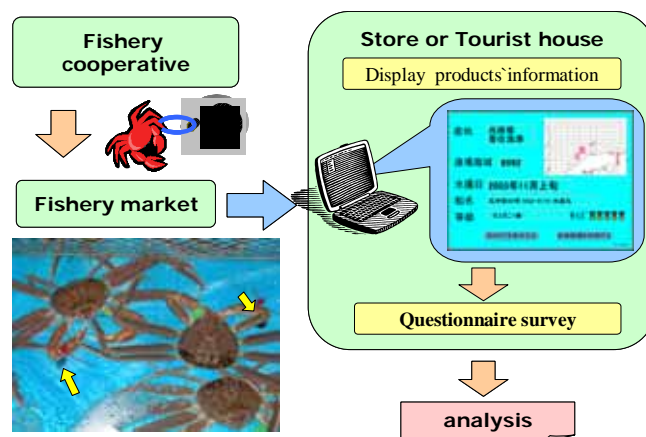


Figure 9 Adding product information

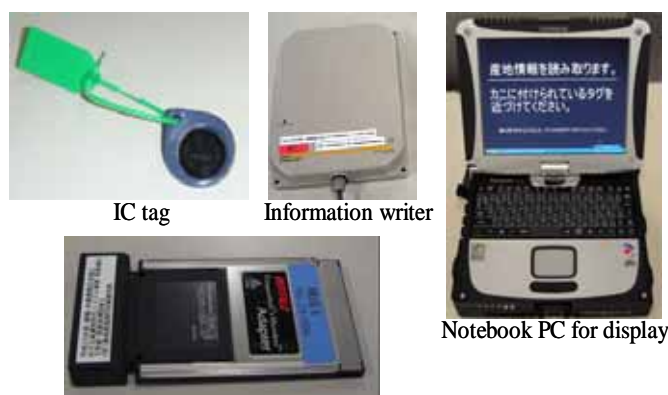


Figure 10 Machineries for

