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MARKETING OPPORTUNITIES FOR PACIFIC BOTTOM FISH IN JAPAN

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1. THE JAPANESE MARKET

1.1 Market Structure

Many opportunities are offered for seafood exporters to the Japanese market, but realising these presents a demanding challenge. Japan's total fish catch is around 11 million tonnes annually. In addition it is the world's largest importer of fisheries products. In 1986 imports reached a record 1.87 million tonnes valued at over US$ 7,700 million.

The fish marketing structure in Japan is very complex, made up of many steps in a long chain with many inter-connections. Fresh fish entering Tsukiji market in Tokyo is likely to pass through the following marketing flow: supplier; importer; primary wholesaler (auctioneer); sub-wholesaler (market place dealer); retailer, restaurant or institution; consumer. Some fish purchased at auction may be distributed to markets in other parts of Japan where it may again enter the marketing chain at the primary wholesale level. The key to the Japanese system is the auction which on a daily basis rates and prices fish against quality and abundance. Because of the size of the market and the number of buyers it makes it hard for collusion and restrictive practices to affect prices to the detriment of the seller.

The intricate marketing structure in Japan results from the vast quantity of fish to be sold and the huge numbers of species and types of products. To enable the physical distribution on this scale requires a careful interlocking of the marketing flow. The end purpose of this system is to enable the individual Japanese housewife or restaurant patron to obtain their requirements on a daily basis from the approximately 60,000 fish retail outlets or hundreds of thousands of sushi bars and restaurants.

1.2 Chilled fish market

Very high prices can be obtained for the best quality chilled fish in Japan. However, the highest prices are only obtainable (Y3,000-4,000/kg) if the fish is a species suitable for raw fish eating (sashimi). The fish must also be of the freshest quality. Fish not meeting these criteria will command a much lower price, similar to that for frozen fish. There are many species of Pacific botoom fishes which are suitable for sashimi and it is this sector of the market which should be targeted by Pacific Islands exporters.

1.3 Frozen fish market

Frozen bottom fish supplies much of the product for cooked fish dishes at the restaurant, institutional and consumer level. It obtains a much lower price than chilled fish, with an average purchase cost in 1985 of Y350/kg for headed and gutted fish. Frozen fish is largely sold at fixed price, usually in big quantities (10t lots upwards). This product is supplied by countries with large-scale trawl fisheries. The quantities required and the lower prices achieved make it unlikely that Pacific exporters could enter this market.

1.4 Regional factors

The Japanese archipelago comprises four main islands and numerous small ones. Its stretches over 3,000 km from north to south and lies between latitudes 24° - 45°N. At least 3,200 species of fish have been reported within 200 n.mi. of Japan (Masuda, et al 1984). Most of the common bottom fishes from the Pacific Islands also occur in Japan, although their relative abundances may be quite different.

With such a range of latitude and diversity of species it is natural that distinct regional preferences have developed in Japan. The value of a fish may be much greater in an area where it is well known as compared to one where it is little seen. Knowledge of these factors is important in selecting the best markets for the sale of particular species. For Pacific bottom fishes the areas where they are best known are Kyushu and the Ryuku Islands.

1.5 Species familiarity

An important factor in determining the market price for a fish is its familiarity to the buyer. Fish which are well known will normally realise a higher price than ones which are little known. It will be an uphill battle to sell an unknown type of fish, even if its product quality and eating characteristics are better than familiar but inferior species.

2. MARKET PRICES

2.1 General

The price information recorded below was collected in Japan during September and October 1985. Like all such information it can only be considered accurate for the period to which it relates. However, because the main source of supply of the species considered is from within Japan and there is little seasonal effect on supplies, prices are thought to be relatively stable. Price data were collected from discussions with importers, trading companies and fishing companies, and from visits to fish markets in Tokyo, other parts of Honshu, and in Kyushu.

2.2 Tokyo - Tsukiji

Several species of bottom fish available for export from the Pacific Islands are caught in Japanese waters and sold at Tsukiji. Because of their small volume these species are not separately identified in the market statistics and information on throughput and prices are not directly available. The following price information was supplied by market traders and from direct market observations.

Etelis coruscans

This species is seen almost every day; quantities are small, usually 50 (10kg) boxes are offered for sale each week.

The auction price range quoted was Y1,400-1,800/kg with better prices being obtained for larger fish. Observed prices at the sub-wholesaler level were Y2,000-3,000/kg. The preferred size is 2-7kg, but many fishes are less than this size.

Etelis carbunculus

This species is much less well known at Tsukiji than **E. coruscans** and because of this obtains a lower price. The anticipated market price is Y1,000-1,500/kg.

Pristipomoides sieboldi

This is the only one of the six species of **Pristipomoides** seen at Tsukiji and the only one which appears to be available in commercial quantities in Japan. The estimated price for other species if they were imported is Y1,000/kg.

Paracaesio caeruleus

This species was more common than any of the preceding ones. It is caught by line in southern Japan and seen regularly on the market. Auction prices are estimated to be in the range Y1,500-2,000/kg. Observed sub-wholesaler prices varied from Y2,000-2,800/kg. The size range was 1-2kg.

Epinephelus spp.

Groupers are rarely seen at Tsukiji. When available they are reported to fetch Y3,000-4,000/kg. The preferred size range is 3-5kg.

2.3 Kagoshima

Kagoshima in Kyushu is the most southerly of the major cities of Japan. Because of its location, tropical and sub-tropical bottom fish species are important components of its fish market throughput. The quantities handled are large enough to be recorded separately in market statistics. Quantities and prices for selected species are given in Table 1.

Table 1: Quantities and average prices for selected bottom fish species at Kagoshima wholesale fish market 1983-1984

Species	1983 Quantity t	1983 Y/kg	1984 Quantity t	1984 Y/kg
Seriola rivoliana	118	1,454	151	1,454
Etelis coruscans	217	1,687	185	1,759
Pristipomoides spp.	112	1,112	125	1,083
Paracaesio spp.	528	1,395	411	1,484
Groupers	123	1,887	115	1,975

During a visit to the Kagoshima market a large number of bottom fish common to both the Pacific Islands and Japan were observed. They included: **Etelis coruscans, E. carbunculus, Pristipomoides sieboldi, Tropidinius amoenus, Aprion virescens, Gymnocranius spp., Lethrinus elongata, Seriola rivoliana, Epinephelus morrhua, E. septemfasciatus, E. maculatus, Variola louti, Cephalopholis miniatus,** and a number of goatfishes and surgeonfishes.

The manager of the bottom fish section of the market provided estimates of the prices for several species not recorded separately in the statistics. These were in yen/kg:

Pristipomoides filamentosus	1,000-1,500
P. multidens	300
P. flavipinnis	600
Tropidinius amoenus	500
Lethrinus variegatus	600
Lutjanus malabaricus	800
Paracaesio stonei	2,000 (top quality)

The company operating the market was willing to receive product from the Pacific and suggested the following species would be suitable: **Etelis coruscans, Pristipomoides filamentosus, Paracaesio spp.,** and groupers.

2.4 Nagasaki

Nagasaki used to be an important landing port for tropical bottom fishes with catches brought back from as far away as Indonesia and Australia. The number of boats fishing for deep bottom species has decreased because of overfishing of the stocks, but vessels still land in Nagasaki from fishing grounds as far south as the southern Ryuku Islands. Because of the historical fishing patterns the species available for export from the Pacific are well known in Nagasaki.

Statistics on landings and prices for the species of interest were not available. The following is a summary of expected prices and availability obtained from the director of the company managing the market, and from sub-wholesalers.

Etelis coruscans - a few only are sold in the market with 30 pieces the maximum in one day. Price not specified

Paracaesio caeruleus - reasonably common with prices from Y1,000/kg upwards

Seriola rivoliana - commonly seen but in small quantities; 2-3kg is the preferred size with prices in the range Y1,500-1,800/kg.

Groupers - these are usually in short supply and expensive in winter when they fetch Y2,000/kg upwards

Lethrinus spp. and **Gymnocranius** spp. - these are frequently seen in small quantities and fetch Y1,000-2,000/kg.

2.5 Shimoda

Shimoda is a small port at the south of the Izu peninsula in Honshu. Line fishing boats which fish around the Izu and Ogasawara Islands unload at Shimoda. These vessels catch **Etelis coruscans** and **E. carbunculus** amongst other species, with **E. carbunculus** being much less common than **E. coruscans**, as seems to be the case generally in Japanese waters.

Retail prices for **Etelis coruscans** were reported in the range Y3,000-4,000/kg and for **E. carbunculus** Y3,000/kg.

2.6 Okinawa

Direct market observations were not possible at Okinawa but some information is available on the types of fish and prices from that area. The principal fishery is for **Etelis coruscans** and about 500t/year is landed. The resource is reported to be depleted and only small fish are now caught. Significant quantities of other tropical bottom fish are also landed. Prices of fresh chilled fish are reported in the range Y1,000-3,000/kg with **E. coruscans** fetching Y1,500-2,000/kg. High prices are paid for groupers, particularly red coloured ones.

2.7 Summary

Based on the results of the market survey the following ranking of the market preference in Japan for commonly occurring Pacific bottom fish is suggested:

1. Groupers (red) — most preferred
2. Groupers (others)
3. Etelis coruscans
4. Paracaesio caeruleus
5. Seriola rivoliana
6. Pristipomoides sieboldi
7. Gymnocranius lethrinoides
8. Etelis carbunculus
9. Pristipomoides filamentosus
10. Lethrinus spp.
11. Pristipomoides flavipinnis
12. P. multidens
13. Aphareus rutilans
14. Tropidinius amoenus
15. Lutjanus malabaricus — least preferred

Prices are summarised in Table 2.

Table 2: Auction prices for bottom fish at different markets in Japan, October 1985. Prices are in yen/kg for whole chilled fish.

	Tsukiji	Kagoshima	Nagasaki	Okinawa
Etelis coruscans	1,400-1,800	1,687		1,500-2,000
Pristipomoides spp.	1,000	1,112		
Paracaesio spp.		1,395	1,000+	
Groupers		1,889	2,000+	-3,000
Seriola rivoliana	1,000-1,500	1,454	1,500-2,000	

3. COSTS OF MARKETING PACIFIC ISLANDS FISH IN JAPAN

3.1 In country costs

The direct cost components of sending a consignment of chilled fish by air to Japan comprise:

* cost of fish
* packaging
* ice
* transport to airport
* air freight (packaged weight of 10kg of fish is 11.5kg)
* export tax (if applicable)

3.2 Costs in Japan

After arrival in Japan the cost components comprise:

* import duty (5% on C&F value)
* internal freight
* importer's commission (usually 5%)
* importer's handling charge
* auctioneer's commission (usually 5.5%)

3.3 Selling price required

To determine the selling price required to make it profitable to export fish to Japan it is first necessary to calculate the cost (C) of putting the fish on the market floor. The cost comprises all the components in 3.1 plus import duty, internal freight and the importer's handling charge. If the importer's commission is 5% (this may vary according to the size of the consignment) and the auctioneer's commission is 5.5% (the rate at Tsukiji), then the selling price required to break even (SPo) is:

$$SPo = C/(1 -(0.05 + 0.055))$$
$$= C/0.895$$
$$= 1.12C$$

To make the transaction profitable a markup (M) is required to cover the exporter's overhead costs (all those not included in 3.1), and to provide a return on capital. This could be calculated as a fixed proportion of the fish cost (F). The selling price with markup (SPm) would then be:

$$SPm = 1.12 (C+MF)$$

3.4 Worked example

The example given below shows the cost of getting a kg of chilled snapper or grouper from Fiji to Tokyo in October 1985. Also shown is the price required to provide a markup of 30% on the cost of the fish. Costs in Fiji have been expressed in US$. These were converted to yen on arrival in Japan at the then rate of US$1=Y218.

Fish cost	US$1.80	MF= 0.3 X 1.80 = US$0.54=Y118
Packaging	.25	
Ice	.02	
Transport to airport	.50	
Air freight	1.72	
Other costs	.05	
C&F	US$4.34	

C&F	Y 946
Import duty	48
Internal freight	50
Handling charge	25
Cost at market	Y1,069

$$Spm = Y1.12 (1,069 + 118)$$
$$= Y1,329$$

3.5 Exchange rate considerations

The exchange rates used in the above example were those current in October 1985. Since then they have changed greatly, making it more favourable for exporters trading with Japan. If the example is reworked with an exchange rate of US$1=Y143 and assuming an increase of 20% in costs for getting the fish to Japan, the following result is obtained:

C&F US$5.21 MF = 0.3 X 2.16 = US$0.65 = Y93

C&F	Y 745
Import duty	37
Internal freight	50
Handling charge	25
Cost at market	Y 857

SPm = Y1.12 (857 + 93)
= Y1,064

4. EXPORT PROSPECTS FOR PACIFIC COUNTRIES

4.1 Marketing difficulties

Japanese buyers indicated the following difficulties in marketing Pacific bottom fishes in Japan:

* unfamiliar species
* bias against tropical species which are considered inferior
* small supply
* poor image of quality control from Pacific countries
* doubts about freshness

The first two difficulties can to some extent be overcome by marketing the fish in Kyushu where tropical fish are better known. However, air connections are not so easy as with Tokyo, and cost will be higher.

Irregular supply is a difficult problem to overcome with fresh fish when it is based on the small fishing fleets of Pacific countries. It is likely to be reduced if exports can be directed to Kagoshima or Nagasaki where they can be added to an existing supply of the same species from local suppliers. The small quantities likely to be available from Pacific countries make it difficult to enter the Tsukiji market, although this should not be ruled out. However, it may mean that the importer's commission rate would have to be more than the 5% used in the calculations 3.4 and 3.5 above.

The last two difficulties can be overcome if fish of good quality is regularly consigned to the markets. It is important that exporters use a brand name which becomes known as representing quality. However, even if quality standards are high, imported fish are unlikely to achieve the same price as local fish of the same species. The buyers know that the fish has had further to travel, is probably older and therefore has a reduced shelf life. For these reasons imported fish are usually discounted.

4.2 Marketing opportunities

The most promising potential export lies in the development of a market for Pacific groupers. These species were consistently the highest priced bottom fish in the Japanese markets and the demand also exceeded the supply. Factors enhancing their potential are their lower buying cost in most Pacific countries and their availability at times of highest price in Japan (the northern winter).

If the highest quality standards are maintained a market exists for the long-tailed red snapper, **Etelis coruscans**. The fact that Pacific fish are larger than those now caught in Japanese waters may enable a higher than average price to be obtained.

The short-tailed red snapper, **Etelis carbunculus**, is more abundant in the tropical Pacific than **E. coruscans**, but does not command the same price. To market this fish profitably would require regular consignments and promotional activities.

The amberjack, **Seriola rivoliana**, is a low priced fish in most Pacific countries but a comparatively high priced one in Japan. If it can be caught in sufficient quantities it would be a species worth sending to markets in Kyushu.

The fusiliers (**Paracaesio** spp.) achieve good prices in most places in Japan but their available quantities would be a limiting factor in developing an export market for them as they usually comprise only a by-catch in Pacific countries.

The most abundant bottom fishes in the tropical Pacific are the several species of **Pristipomoides**. Unfortunately these do not command a price sufficient to make their export profitable unless catching costs are reduced.

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PREFERENCE

MASUDA, H., AMAOKA, K., ARAGA, C., UYENO, T., YOSHINO, T. 1984: The fishes of the Japanese archipelago. Tokai University Press, Tokyo, Japan, Two volumes: Text 437p., Plates 370p.

APPENDIX: Common bottom fishes of the outer reef slope

Scientific name	English names	Japanese names
ETELIDAE		
Aphareus rutilans	small-tooth jobfish	oguchi ishichibiki
Aprion virescens	green jobfish	aochibiki
Etelis carbunculus	short-tailed red snapper	hachijo akamutsu
E. coruscans	long-tailed red snapper	hamadai
E. radiosus	long-jawed red snapper	okuchi hamadai
Pristipomoides auricilla	yellow tailed jobfish	kimadara himedai
P.filamentosus	rosy jobfish	ohime
P. flavipinnis	yellow jobfish	kinmehimedai
P. multidens	large-scaled jobfish	nagasakifuedai
Tropidinius amoenus	large-eyed flower snapper	hana fuedai
T. zonatus	banded flower snapper	shimachibiki
LUTJANIDAE		
Lipocheilus carnolabrus	fleshy-lipped snapper	kibire fuedai
Lutjanus malabaricus	scarlet seaperch	
L.timorensis		
L.gibbus	paddle tail seaperch	
Paracaesio kusakarii	Kusakar's fusilier	shima aodai
P. stonei	Stone's fusilier	yanbaru shima
aodai		
SERRANIDAE		
Epinephelus areolatus	yellow-spotted grouper	omonhata
E. chlorostigma	brown-spotted grouper	hosekihata
E. hoedti	blue grouper	tsuchihozeri
E. magniscuttis	large-scaled grouper	
E. morrhua	brown-striped grouper	iyagohata
E.septemfasciatus	seven-banded grouper	mahata
LETHRINIDAE		
Lethrinus elongata	long-nosed emperor	kitsune fuefuki
L. variegatus	variegated emperor	hose fuefuki
PENTAPODIDAE		
Gnathodentex mossambicus	large-eyed bream	
Gymnocranius lethrinoides		tamameichi
CARANGIDAE		
Seriola rivoliana	amberjack	kampachi
SHARKS		
Squalus megalops	shortnose spurdog	