

**Final report: Development of a prices paid
monitoring system**

FRDC project number 94.110

Determining the prices paid for Australian fisheries products

ABARE report prepared for the Fisheries
Research and Development Corporation

Cas Johnson

October 2001

ABARE

Innovation in Economic Research

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Australian Bureau of Agricultural and Resource Economics
GPO Box 1563 Canberra 2601

Telephone +61 2 6272 2000 Facsimile +61 2 6272 2001
Internet www.abareconomics.com

ABARE is a professionally independent government economic research agency.

Acknowledgments

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Non technical summary

Unlike many other rural sector industries where farm gate prices are readily available, beach or boat prices for fish are not readily available. However, such information is needed to measure the value of fisheries products in different fishery industries, and to determine the gross value of fisheries production (GVP). The latter is used by the fishing industry and the government to monitor the economic performance of the fishing sector, and by the government to determine fisheries research funds and levies.

Fishers are able to sell their product through a wide range of outlets, including directly off the boat, agent sales, cooperative marketing, or directly to export markets. Thus it would be difficult to attempt to collect representative prices regularly from individual fishers. It is possible, however, to reduce the number of sources of price data by concentrating on collecting prices from fish receivers and exporters. Boat or beach prices can then be estimated by deducting average marketing and transport costs from the point of landing to the point of processing.

In 1999 and 2000, ABARE trialed the collection of price data from fish receivers and exporters. In the first trial, undertaken in 1999, major fish receivers were asked to supply prices for the full range of species they purchased from fishers. However, this required a large workload for individual receivers, particularly in the multi species fisheries such as the south east trawl and in the non trawl fisheries, where the same species of fish could be caught in different fisheries or the same fisher could be operating in more than one fishery, catching the same species. Despite sustained communication, and many offers from cooperators to provide information, no price schedules were returned in the first trial.

In the second trial, conducted in 2000, a survey system was used to collect price data on a species, rather than a fishery, basis. This system required more work in developing a sample survey structure, and more processing of the received price data, but entailed a much lower workload for individual cooperators. The design of the price questionnaire was also revised based on comments received from cooperators in the first trial. While the actual price data received from cooperators was insufficient to calculate any price series, the level of interest displayed by those cooperators in providing this price data was still high.

Based on experience obtained from the two trials, ABARE considers it may be feasible to develop a small data collection system initially based on collection of specific prices from selected cooperators. The guiding principles for such a system would be:

- work load for a cooperator be minimised;
- data collection be initially by phone;
- the number of price series collected from an individual cooperator be no more than five, except for those cooperators willing and able to provide additional series due to their electronic record keeping facilities, for example, the Sydney and Melbourne wholesale markets;
- the survey form would show previously supplied prices;
- pricing to be monthly, but where seasonal factors are not important, quarterly; and
- a confidential price report be forwarded to cooperators showing all species but in a form which would protect individual data.

The benefits of such a system would be that cooperators would be able to compare their own prices with the industry average, and the government would have access to better information on 'landed' fish prices. Depending on the level of publication of this price data, individual fishers in the industry would, for the first time, also have access to 'landed' prices.

Acknowledgments

Population data of fish receivers and the volume of trade for the trial fisheries were provided by Thim Skousen of AFMA. The support of AQIS, particularly Melissa Lamont, in providing information on exports of seafood products from Australia is gratefully acknowledged. The assistance from members of the Australian seafood industry who provided comments and feedback during the trials also gratefully acknowledged.

Background

The collection of statistics on the volume and gross value of production, and the publication of *Australian Fisheries Statistics*, has assumed greater significance since it was commenced by ABARE in 1990. In addition to being the main record of Australian catches and value of production, it:

- provides the basis for allocating research funding to FRDC;
- is used to set research levies on industry to fund their contribution to research;
- is an essential component of the information base required to manage Australian fisheries;
- is used to meet Australia's obligations to provide fisheries information to international organisations, such as the FAO and OECD; and
- provides the basis for a range of other activities, including the setting of research priorities by research organisations and selecting a research portfolio for funding.

Need

Currently, no one regularly collects and publishes information on Australian 'landed' fish prices. This is despite both industry and government wanting price information to help them monitor markets, promote industry development, manage fisheries, and formulate policy.

Most rural industries have access to regular 'farm gate' prices supplied by a mix of public and private information providers, and prices and commentary are the staples of the rural media. For fisheries, however, aside from the capital city fish markets, no regular price information is available. A number of reasons have been suggested for this lack of information. The fishing industry is geographically diverse. Markets are often small, local, and seasonal. The lack of commercial providers may simply indicate that the cost of collecting price information exceeds the likely return from its commercial sale.

The need for accurate price information was discussed in detail at a FRDC funded workshop in February 1997. The National Fisheries Economics Statistics Steering Group formed at this workshop identified that the collection of price data, particularly on the prices paid to fishers for their catch, was a priority area for further work. Given industry and government's need for better price information, the Fisheries Research and Development Corporation (FRDC) engaged ABARE to investigate feasible approaches for more regularly collecting information on Australian 'landed' fish prices.

The cost-effectiveness of collecting information will depend on the intended use of that information. The quantity data available to ABARE is generally quite detailed. Price information, however, is sketchy. If more regular and more detailed price information could be obtained, ABARE would have better information both for economic research, and for calculating the gross value of Australian fisheries production. ABARE's estimates of the latter, obtained using catch and price information from a variety of sources are published annually in *Australian Fisheries Statistics* by species, by state, and in the case of Commonwealth fisheries, by fishery. With better price information, other organisations, particularly those responsible for fish product promotion, marketing and monitoring, potentially also could increase the quality of their own analyses.

Objectives

The overall objective of the project is to develop a cost effective system of obtaining relevant catch and price data to estimate the gross value of production. The objectives of the specific program outlined in the application were:

- to develop and implement a procedure for ongoing monitoring of prices paid for fisheries products; and
- to develop procedures to expedite the processing of the volume and value of production data into the range of formats required by users.

Methods

Two collection systems were trialed to determine the feasibility of collecting pricing data for Australian fisheries. Each trial was based on collecting data from licensed fish receivers, exporters and other industry representatives. Prices collected from these sources would, in most cases, need to be adjusted back to 'landed prices'. In the first approach, all traders and processors would be asked to provide regular price information on all fish species they trade. Effectively, all operators in the fishing industry would be asked to become voluntary providers of price information, providing price information for every species they traded. As a quid pro quo for providing this information, they would be sent regular reports showing both their own, and average industry prices.

The costs of setting up and maintaining such a system may be large, however, and not all operators may be interested in voluntarily participating. Therefore, a more targeted, sampling approach was also examined.

The second approach would require only a sample of operators to become voluntary information providers, the sample being selected to ensure an adequate and representative coverage of prices, and the cooperator's questionnaire individually designed to cover only selected species to meet the sampling requirements. As in the first approach, as a quid pro quo for providing this information, cooperators would be sent regular reports showing their own, and average industry prices.

Three Commonwealth fisheries were surveyed — northern prawn, south east trawl and east coast tuna and billfish.

Results/Discussion

The outcomes from this research are discussed in the attached report.

Benefits

For fisheries, ABARE is required by the Department of Agriculture, Fisheries and Forestry — Australia (AFFA) to prepare annual estimates of the gross value of production of Commonwealth fisheries for the determination of industry levies and Commonwealth government contribution to research and development. Currently the data required comes from a range of sources including wholesale markets in Sydney and Melbourne, export data compiled by the Australian Bureau of Statistics, as well as from a number of industry and price reporting publications. However, these data represent prices at points further down the supply chain rather than at the point of landing or beach prices. Hence information is required about conversion factors where product is reported in processed form, for example headed and gutted, freight and marketing charges and exchange rate conversions.

This approach, utilising data from various sources, in general provides ABARE with sufficient information to calculate the annual gross value of production (GVP) of each Commonwealth fishery for the purpose of determining Commonwealth fishing levies. It is also sufficient to allow the comparison of GVP overtime and to estimate the contribution of the fishing industry to both state and national economies. At the same time, however, it is clear that most of the ‘landed’ prices are presently derived rather than directly obtained. More detailed and more regular information on ‘landed’ prices would give ABARE better information for calculating the GVP and provide a more detailed picture of price trends at the first logical point of valuation.

Further development

When designing a system to regularly collect ‘landed’ fish prices, three issues need to be resolved: what prices are to be collected; how these prices are to be weighted in an index; and how a sample of operators is to be drawn. For further discussion on these issues see Chapter 3 of the attached report. However, because cooperation by fish traders/processors is voluntary and based on goodwill, it may be appropriate to provide feedback to the cooperator in the form of a ‘cooperator’s report’ summarising the average prices estimated for surveyed species. The report would enable cooperators to verify, and provide feedback on, the results. The cooperator’s report would be confidential, sent only to the original information provider, and could also contain long term price data series.

Planned outcomes

In the original proposal it was planned to develop and implement a procedure for ongoing monitoring of prices paid for fisheries products. It became apparent during the life of the project that any successful data collection procedure needed to be well targeted and not onerous on those providing the data. The voluntary nature of this type of data collection and lack of direct demonstrable benefits to those providing the data impacted on the number of responses received during the trials. This limited response meant that no representative price series could be generated, and that no assessment of the benefits from using this data for could be made.

However, the research did assess the conditions that would need to be met if a data collection of this type was being considered.

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Appendix 1

Intellectual property not applicable

Appendix 2

Staff

Paula Holland

David Campbell

Anne Purtell

Koenraad van Landeghem

Perry Smith

Sepideh Helali

Peter Gooday

Graham Love

Thim Skousen

Mellissa Lamont

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The benefits of such a system would be that cooperators would be able to compare their own prices with the industry average, and the government would have access to better information on 'landed' fish prices. Depending on the level of publication of this price data, individual fishers in the industry would, for the first time, also have access to 'landed' prices.

1. Introduction

Background

Currently, no one regularly collects and publishes information on Australian 'landed' fish prices. This is despite both industry and government wanting price information to help them monitor markets, promote industry development, manage fisheries, and formulate policy.

Most rural industries have access to regular 'farm gate' prices supplied by a mix of public and private information providers, and prices and commentary are the staples of the rural media. For fisheries, however, aside from the capital city fish markets, no regular price information is available. A number of reasons have been suggested for this lack of information. The fishing industry is geographically diverse. Markets are often small, local, and seasonal. The lack of commercial providers may simply indicate that the cost of collecting price information exceeds the likely return from its commercial sale.

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Outline of the report

Two possible approaches for collecting better price information are examined in this report. In the first approach, all traders and processors would be asked to provide regular price information on all fish species they trade. Effectively, all operators in the fishing industry would be asked to become voluntary providers of price information, providing price information for every species they traded. As a quid pro quo for providing this information, they would be sent regular reports showing both their own, and average industry prices.

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The costs of setting up and maintaining such a system may be large, however, and not all operators may be interested in voluntarily participating. Therefore, a more targeted, sampling approach was also examined.

The second approach would require only a sample of operators to become voluntary information providers, the sample being selected to ensure an adequate and representative coverage of prices, and the cooperator's questionnaire individually designed to cover only selected species to meet the sampling requirements. As in the first approach, as a quid pro quo for providing this information, cooperators would be sent regular reports showing their own, and average industry prices.

Specifically, in chapter two, existing sources of fish price information, and how these are currently used by ABARE to calculate fisheries gross values of production, are described. In chapter three, to provide the theoretical background for the two possible approaches, some relevant issues concerning prices, price indexes, and sampling are examined. In chapter four, details of the trials of the two approaches undertaken by ABARE are described.

2. Existing information sources

To fulfil its commitment to providing stakeholders in Australia's rural and resource industries with up to date public policy analysis and commodity forecasts, ABARE collects a wide range of commodity price information.

For fisheries, ABARE is required by the Department of Agriculture, Fisheries and Forestry – Australia (AFFA) to prepare annual estimates of the gross value of production of Commonwealth fisheries for the determination of industry levies and Commonwealth government contribution to research and development. In addition, FRDC fund a much more detailed collection of economic information on Commonwealth and state fisheries which includes the volume and value of fisheries production, and the volume and value of Australian fisheries trade. This information is published in ABARE's annual *Australian Fisheries Statistics* (ABARE 2001).

Sources of information

The data required for preparing the *Australian Fisheries Statistics* tables come from a range of sources. For example, state fisheries departments provide information on quantity and value of their state's fishery catch, and the Australian Bureau of Statistics provides quantity and value information on Australian fisheries exports and imports. For all the Commonwealth fisheries, the Australian Fisheries Management Authority (AFMA) provides detailed quantity of catch data. To calculate the gross value of production for Commonwealth fisheries, a comprehensive range of fish price data is produced.

Wholesale fish market reports

One of the main sources of pricing data is the monthly Melbourne and Sydney wholesale fish market reports. Table 1 shows the monthly market information for two species sold through the Sydney wholesale market, albacore and hapuka. In this particular case, albacore had no processing, while hapuka is sold both as whole fish, and with a degree of processing. The table also shows the wide range in the reported prices for each species.

ABARE uses this wholesale price information to calculate an implicit 'landed' fish price by first adjusting the price to a 'whole fish' basis (if required), then subtracting market and transport costs. Taking hapuka as an example, in table 1, the reported average weight from the market report was 6349 kg and the reported average price was \$7.54/kg. But this total included 'gilled gutted' and 'gutted headed' as well as whole fish. Adjusting back to a 'whole fish' basis (using conversion factors of 1.1 and 1.45 respectively) resulted in a 'whole fish' equivalent weight of 7529 kg and an average price of \$6.35/kg. This 'whole fish' equivalent price was then adjusted for marketing and freight (21 per cent in this example) to derive a final average boat price of \$5.02/kg. For albacore, the reported wholesale market price was \$4.62/kg. Since these fish were sold whole, no processing adjustments were required. However, to derive the final average boat price, an adjustment similar to that for hapuka was made for marketing and freight. This resulted in an estimated boat price for albacore of \$3.65/kg.

1 Sydney wholesale market price: selected species

Information supplied from the market report						ABARE calculations					
Product type Code	Description	Size	Crates	Weight	Price	Calculated Value	Product type to whole weight		Adjustment		
				no	kg	\$/kg	Conversion	Adj weight	Adj price	Net of freight and marketing	
ALBACORE				27	747.4	4.46	3,336	1	747	4.46	
ALBACORE			1	1	15.0	5.11	77	1	15	5.11	
ALBACORE	IS	Ice slurry		3	100.0	6.55	655	1	100	6.55	
ALBACORE	SA	Sashimi		3	24.5	1.11	27	1	25	1.11	
ALBACORE	WH	Whole		10	203.9	4.65	949	1	204	4.65	
					1,090.8	4.62	5,043		1,091		
								Adj Sydney price	4.62	Adjustment less 21%	Final price \$3.65
HAPUKA				2	17.7	9.23	163	1	18	9.23	
HAPUKA	GG	Gilled Gutted		9	186.1	7.68	1,429	1.1	205	6.98	
HAPUKA	GG	Gilled Gutted	L	31	852.2	8.92	7,602	1.1	937	8.11	
HAPUKA	GG	Gilled Gutted	M	40	741.9	9.40	6,973	1.1	816	8.54	
HAPUKA	GG	Gilled Gutted	S	7	121.6	7.49	910	1.1	134	6.81	
HAPUKA	GG	Gilled Gutted	X	1	22.0	5.97	131	1.1	24	5.43	
HAPUKA	GH	Gutted Headed		131	2,543.2	8.32	21,159	1.45	3,688	5.74	
HAPUKA	GH	Gutted Headed	L	13	318.5	7.89	2,513	1.45	462	5.44	
HAPUKA	GH	Gutted Headed	M	12	256.0	8.07	2,065	1.45	371	5.56	
HAPUKA	GH	Gutted Headed	S	6	104.8	7.90	828	1.45	152	5.45	
HAPUKA	GH	Gutted Headed	X	10	334.1	7.60	2,540	1.45	484	5.24	
HAPUKA	GU	Gutted		2	42.0	5.97	251	1.1	46	5.43	
HAPUKA	HE	Heads		44	616.7	2.54	na	na	na	na	
HAPUKA	WH	Whole		12	167.4	6.13	1,026	1	167	6.13	
HAPUKA	WH	Whole	L	1	24.5	10.39	255	1	25	10.39	
					6,348.7	7.54	47,846		7,529		
								Adj Sydney price	6.35	Adjustment less 21%	Final price \$5.02

Source: Sydney Fish Markets (2001).

A similar price calculation is undertaken for all the species reported for the Sydney and Melbourne wholesale fish markets. From these monthly prices, a weighted average annual price is obtained, and used in the GVP calculations. Where necessary, additional pricing information for select species is obtained from a number of major fish marketing cooperatives and companies. The monthly prices available from these market reports are useful in providing information on seasonality of fish prices.

State and territory departments

Price (unit value) data can also be calculated from information supplied to ABARE by the state and territory departments responsible for fisheries. This information covers annual quantity and value data for fish caught in their respective jurisdictions. For example, table 2 shows an extract of information supplied by the South Australian Research and Development Institute (SARDI) and published in ABARE's *Australian Fishery Statistics 2000* (ABARE 2001). This state data provides a useful crosscheck on prices obtained from other sources.

Other sources

Price data for the major exported fisheries products (for example, tuna, prawns and rock lobster) are obtained from export data compiled by the Australian Bureau of Statistics, as well as from a number of industry and price reporting publications. For example, table 3 shows prices for southern bluefin tuna sold onto the Japanese market as reported by *INFOFISH Trade News*, while table 4 shows a sample of a report compiled from Japanese import data by the Tuna Boat Owners Association of Australia Inc. The reported Japanese prices need to be converted to Australian dollars and then marketing and freight costs deducted to derive an estimated boat price. An example of these conversions is shown in the bottom right of the table.

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2 Derived prices for South Australian species

	1998-1999			1999-2000		
	Quantity t	Value \$'000	Derived price \$/kg	Quantity t	Value \$'000	Derived price \$/kg
Australian salmon	524	668	1.27	457	564	1.23
Yellow eye mullet	68	114	1.68	74	147	1.99
Tommy ruff	322	314	0.98	303	360	1.19
Snapper	447	2,238	5.01	576	3,247	5.64
King george whiting	594	4,629	7.79	517	4,850	9.38
Garfish	421	1,572	3.73	477	1,906	4.00
Oceanjackets	330	512	1.55	316	579	1.83
Yellow-fin whiting	84	391	4.65	112	556	4.96
Snook	117	240	2.05	94	224	2.38
Pilchard	4465	2,500	0.56	3836	2,685	0.70
Other species	265	542	2.05	216	472	2.19

Source: South Australian Research and Development Institute.

3 INFOFISH Bluefin tuna prices

Fish species Trade names	Product Form & Grading	Indicative Price in yen/kg and US\$/mt	Price reference & Market area	Origin
Southern Bluefin <i>Thunnus maccoyii</i>	G&G, frozen Quality	Y3000-7500 - 24624-61561/mt	Auction Tsukiji Market, Japan	Australia
	Av. quality	Y1300-5000 - 10671-41041/mt		
	Below av. quality	Y800-4000 - 6567-32833/mt		

Currency conversion: 1US\$=Yen121.83

Source: INFOFISH (2001).

4 Southern bluefin tuna prices

	Fresh/Frozen imports of Australian SBT		Imports (yen/kg, c&f)		Fresh/frozen combined
	Imports (tonnes)		Fresh	Frozen	
1998		Fresh 4510 Frozen 1746	1938	2069	1974
1999		Fresh 2300 Frozen 1687	2371	2329	2343
2000 (forecast)		Fresh 3150 Frozen 1560	2350	2300	2320

Average yen value and quantity of Australian
SBT landed in Japan (c&f)

	Tonnes		Yen/kg Japan(c&f)	ABARE calculations Conversion to \$A		Less marketing Boat price \$/kg
	Yen (million)			Yen to \$A	Price in \$A	
1995	3273	5100	1558	69.93	22.28	18.27
1996	3196	5349	1674	77.14	21.70	17.79
1997	6125	10171	1661	89.98	18.46	15.14
1998	6256	12352	1974	85.62	23.06	18.91
1999	6987	16483	2342	77.11	30.37	24.91

Source: Japanese Import Data

In this example, assumed marketing is 18%

Source: Tuna Boat Owners Association (2000).

Cross-checking

Before the estimated boat prices are used in the GVP calculations, they are reviewed by various operators in the industry. One of the purposes of this is to adjust (if necessary) for regional differences in prices, that is, the differences in the prices received for the same species of fish caught or marketed in different regions around Australia. Also, the preliminary GVP estimates are forwarded to the various Commonwealth fisheries managers in AFMA for comment.

This approach, utilising data from various data sources, in general provides ABARE with sufficient information to calculate the annual GVP of each Commonwealth fishery for the purpose of determining Commonwealth fishing levies. It is also sufficient to allow the comparison of GVP over time and to estimate the contribution of the fishing industry to both state and national economies. At the same time, however, it is clear that most of the 'landed' prices are presently derived rather than directly obtained. More detailed and more regular information on 'landed' prices would give ABARE better information for calculating the GVPs and provide a more detailed picture of price trends at the first logical point of valuation.

3. Prices, price indexes and sampling

When designing a system to regularly collect 'landed' fish prices, three issues need to be resolved: what prices are to be collected; how these prices are to be weighted in an index; and how a sample of operators is to be drawn.

What prices should be collected

Four issues need to be examined here:

- Where, in the marketing chain, is the most practical point to first value the product?
- What is the minimum practical price reporting period?
- How should the collected prices be averaged?
- How many different products should be separately specified?

First practical point of valuation

In the manufacturing and rural sectors, the first point of valuation is usually the 'factory' or 'farm' gate. The equivalent in the fishing industry would be the 'boat' or 'landed' price. That is, the price received by the fisher for their catch.

In fishing, some boat operations (including sorting, preserving, and grading) may add value to the catch prior to it being landed. The cooking of prawns at sea, for example, is used as a means of preservation. Since it would not be practical to operate in the industry without undertaking some on-board processing, no attempt is made to exclude the value of these operations from the 'landed' price.

Ideally, pricing information would be sourced from the fishers. However, this may be expensive due to the number of individual fishers and the difficulty in contacting them at sea. The only detailed collection of harvesting or catch data at sea is the logbook returns prepared by all fishers as a requirement of their licences. This information covers only the quantity or number of catch.

On shore, however, the catch is sold through licensed receivers. These traders represent the most practical point at which price data may be sought. The prices reported by traders may be higher, per kilo of whole fish, than boat prices, as they may include some marketing and transport costs. These costs would need to be subtracted to estimate boat prices.

Minimum practical price reporting period

Fish product prices may vary during the year depending on the quality and size of catch. Ideally, prices should be collected frequently enough to capture these seasonal fluctuations. However, the higher the frequency of data collection (say, weekly or monthly), the more work for both the collector and provider.

Quarterly data collection may be sufficient in some cases. In others, however, due to the short seasons of some of the fisheries and the high seasonal pricing that may occur during the

catching season, it may be desirable to collect prices more frequently than quarterly. As discussed in more detail in chapter four, most potential cooperators appear to be willing to supply prices monthly.

Averaging prices

A number of statistical measures can be used to report prices for an individual product. The greater the variability of the prices for any group of fish species or products, the greater the need for better information for determining an accurate average price.

Where prices are relatively stable over the reporting period, then a simple *average* (mathematical mean of the observed prices) or *mode* (most frequently observed price for a product) value may be sufficient. Where prices vary by a greater extent over the reporting period then more detailed information is needed, in particular, information on the relative importance of each price collected over the reporting period.

Number of different products to specify

To calculate the average price or the gross value of production for a group of products, for example a state or specific Commonwealth fishery, it would be necessary to collect information on each product in that group, by species as well as by size and market. However, there could be hundreds of different fish products caught or farmed in that group each year, with significant differences in the quantities of each product sold varying from only a few kilograms through to thousands of tonnes. Also, there could be a significant range in the unit prices paid to the fishers, varying from less than 50 cents per kilo to over \$30.00 per kilo.

It may not be cost-effective to collect all prices for all species and all markets. Rather it may be preferable to collect an indicator price for a group of products, where the indicator price is considered sufficiently representative of a range of prices.

Price indexes

The two main issues concerning the construction of price indexes from the prices collected are what type of index will provide the most useful information, and what data should be used to weight each price.

Type of index

There are two main statistical methods of utilising weights in a price collection system. The *Paasche* weighting system combines prices based on the relevant importance of each item in the current pricing period, while the *Laspeyres* weighting system combines prices based on the relevant importance of each item in a defined historical period.

In this particular exercise, the *Paasche* system appears preferable, as information on the quantity of catch for each species would be readily available each year and the highly variable annual catch of fish product would make historical weighting less representative.

Weighting

To reflect the average value of the product being marketed, the prices collected need to be weighted. For example, if one producer supplies 75 per cent of the volume of fish on the

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market and receives a price of \$10/kg, and a second producer supplies 25 per cent of the fish and receives a price of \$7/kg, then the weighted average price for the product would be \$9.25 per kilo (compared with the simple average of \$8.50/kg).

Determining the average price paid for fish sold requires volume as well as price data. In practice, it may be difficult to estimate a weighted value because the volume data, drawn from AFMA for the Commonwealth fisheries, and from the states and territories for those fisheries under their particular jurisdiction, may be difficult to standardise. No one agency has specific responsibility to hold Australian production data for all species. ABARE in fact performs this function, by default.

Sampling

Theoretical options for the level of data collection range from a census collection, aimed at obtaining total information on product quantity and price, to a sample selection system, aimed at obtaining sufficient quantity and price data to provide statistically accurate estimates. In practice, a census is expensive, and despite measures taken to assure the commercial confidentiality of information, many fish buyers may be reluctant to release price and quantity information, thereby effectively ruling out a census approach. This would leave the sampling approach as the only feasible, and cost-effective, way to collect enough data to meet the necessary reporting requirements.

Population sources

Population data is required for two processes in the collection system. The first set of information involves the quantity of each fish species caught and marketed in the survey collection period. For Commonwealth fisheries this information is available, in an aggregated form, from the logbook data prepared by fishers and forwarded to AFMA. This information is required to weight the importance of each fish species.

The second set of population data is the listing of fish receivers and the quantities of product they market. This information is needed to determine the weighting of the prices received from each cooperator for each species surveyed. This information is also required to design a sample to select the appropriate cooperator to provide data on each species.

Other survey procedures

There are a number of practical requirements to be considered if a price collection system is to be introduced. These include:

- structuring the sample according to characteristics of interest (e.g. location, and product groupings);
- identifying indicators of use in the survey design process (e.g. size of business);
- calculating a comprehensive set of weights;
- developing a suitable survey schedule; and
- training staff and establishing procedures for tasks such as mailout or phone collection, data returns, data storage, data editing, follow up on received data, processing and reporting results.

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Because cooperation by fish traders/processors is voluntary and based on goodwill, it may be appropriate to provide feedback to the cooperator in the form of a 'cooperator's report' summarising the average prices estimated for each surveyed species. The report would enable cooperators to verify, and provide feedback on, the results. The cooperator's report would be confidential, sent only to the original information provider, and could also contain long-term price data series. Cooperator's reports may not be able to be provided in instances where one or two operators have a large level of market dominance, that is, where the provision of such reports may inadvertently provide market intelligence to competitors.

4. Collection trials

Two collection systems were trialed to determine the feasibility of collecting pricing data for Australian fisheries. Each trial was based on collecting data from licensed fish receivers, exporters and other industry representatives. Prices collected from these sources would, in most cases, need to be adjusted back to 'landed' prices.

Trial 1

A summary of the structure for the first trial is shown in Table 5.

5 Structure for Trial 1

Fisheries surveyed	Commonwealth fisheries <ul style="list-style-type: none">- Northern Prawn- Southeast Trawl- East coast tuna and billfish
Population	186 <ul style="list-style-type: none">- Licensed fish receivers and exporters- Other industry representatives
Sample	All population mailed
Questionnaire	All species in fishery <ul style="list-style-type: none">- price and quantity data- product form and marketing- domestic and export proportions

Population lists were compiled using three key sources:

- AFMA holds information on licensed receivers of Commonwealth fisheries products. Receivers were approached because they represent a smaller, more concentrated population of individuals who trade in fisheries products (rather than the diverse and extensive list of operators who harvest the fish). This information does not always indicate which products specifically are covered although there may be an indication of the key fisheries involved;
- AQIS holds information on fish products exported, by species and exporter; and
- *Australian Seafood Industry Directory* (see Austin, Thrower and Snow 1997). This publication is published by the Australian Seafood Extension and Advisory Service and provides information on traders in the fishing industry.

In all, 186 potential cooperators were identified. Between April and May 1999, a letter, counter signed by Peter Dundas-Smith, Executive Director Fisheries Research and Development Corporation, was forwarded to each potential cooperator requesting assistance in the trial. Included with each letter were a price schedule relevant to their fishery, a copy of ABARE's *Australian Fisheries Statistics, 1998*, and FRDC's *From Antarctica to the tropics: a snapshot of the Australian fishing industry*.

A register was maintained of the population list, together with comments obtained from any additional follow up action including direct phone communication.

Separate schedules were designed to cover the different fisheries and are shown in Attachment A. Identical schedules were forwarded to each cooperator asked to provide information on each fishery. While there was a good response from cooperators during the follow up phone discussions, and despite resending 'lost' schedules, no price schedules were received from cooperators.

Trial 2

It was apparent from the discussions with cooperators during the first trial that there was still considerable industry interest in a price collection system, and in both providing and receiving the price data. However, it was also clear that the work load for cooperators in the first trial had been too high.

Accordingly, major changes were made to the schedule and design for the second trial. A statistical sample survey collection, based on the quantity and value of catch from the various fisheries was developed. The system targeted specific cooperators and requested data only for specific species from each cooperator. To develop a statistical sample collection, it was necessary to obtain actual quantities of product sold by each cooperator and then value that product to determine the relative importance, or sample weight, for the price data.

A summary of the structure for the second trial is shown in Table 6.

The population lists from the first trial was limited in the second trial to receivers and exporters for which information on actual fish product sales were available. This reduced the population to 87 potential cooperators.

In the second trial the cooperator was only requested to provide data for specific species, rather than all the species they traded or the species caught in the various fisheries (as in the first trial). In the sample design and selection process, receivers/exporters were ranked for importance to each species and the selection was based on statistical representation. In addition to the receivers selected for the trial survey, the next four highest value receivers were identified for each species to be 'reserves' if the initially selected receiver/exporter was not prepared to provide data. Based on the sample design process, only 76 of the 87 potential cooperators were selected.

6 Structure for Trial 2

Fisheries surveyed	Commonwealth fisheries <ul style="list-style-type: none">- Northern Prawn- Southeast Trawl- East coast tuna and billfish
Catch data	AFMA returns from fish receivers AQIS export returns - for export fishery
Population	87
Sample	76 Based on volume of sales <ul style="list-style-type: none">- sales information identified from receivers/exporters Selection was determined using statistical analysis <ul style="list-style-type: none">- specific sample based on species of fish
Questionnaire	Selected species only <ul style="list-style-type: none">- price and quantity data- involvement in industry- marketing data- timing and coverage

Sample design and selection were based on the value of each species sold. The quantity data alone were not sufficient to provide sample weights even within a single species due to the range in quality and per kilo prices received for the same species in different markets. The prices used were those utilised by ABARE in calculating the GVP of Commonwealth and state fisheries for 1998-99. These price series, though not necessarily boat or beach prices, were adequate for the initial weighting in the sample design and selection process.

1998-99 volume of sales data were obtained from AFMA, giving details of weight of catch by species, by processing factory and by receiver for the southern fisheries. AQIS provided a set of data covering the June quarter 1999 at the same level of detail but for the exporter rather than a fish receiver. For a number of AQIS data entries, the product weight was based on some processing such as 'gilled and gutted', 'headed and gilled', or 'filleted'. In these circumstances, adjustment factors were applied to bring the product to a 'whole fish' basis.

As in the first trial, the redesigned schedules used in the second trial retained two distinct versions, one for the prawn industry, and one for finfish. In line with the sample selection process, individual schedules were prepared for each selected cooperator, identifying only those species for which price and marketing data would be required.

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To assist in the design of the schedules a number of cooperators were contacted by phone to test the schedule style as well as to obtain more general information on their involvement in the industry and the most appropriate timing of the survey. Cooperators willing to assist in this process reviewed draft forms of the schedule. This provided valuable feedback which was used when determining the final schedule design. Samples of the revised questionnaire are shown in Attachment B.

Where a cooperator was selected to provide data for specific species and they were also identified as a potential reserve for other species, then the reserve species were added to their questionnaire. Nevertheless, they were only asked to provide the additional information on the reserve species if it was convenient for them to do so.

A selection of cooperators was contacted by phone to review the revised schedule, as well to address other issues such as the frequency and timing of the survey. With minor adjustments, the new schedule was forwarded to the selected cooperators. To support the mail out of the survey, a number of cooperators were also contacted by phone to improve the level of response to the survey.

Response from the initial phone communication was again positive, and cooperators were more prepared to supply information where the work load was less complex and targeted specifically to their key products. For this trial there were a total of six price and quantity responses received from cooperators, plus one rejection. The number of responses, however, was still insufficient to generate any representative price series.

Appendixes

A. Trial 1

Letter requesting information

Name

Address

Dear

Collection of fisheries price data

The Australian Bureau of Agricultural and Resource Economics (ABARE) produces an annual report, *Australian Fisheries Statistics* which provides information on the production and trade of different fish species in Australia. Information in this publication is used widely by the banking sector, industry groups and fisheries managers.

The need for accurate economic data on the fishing industry was recognised at a FRDC funded workshop in February 1997. As a result of the workshop, the National Fisheries Economics Statistics Steering Committee was formed. The Committee, which included industry representatives, recently published the document *From Antarctica to the Tropics: a Snapshot of the Australian Fishing Industry*. This snapshot has been strongly supported by the fishing industry.

An important component of fisheries statistics is fisheries price data. ABARE is currently completing a FRDC funded project to improve the quality of this data. Traditionally, ABARE has relied on a number of seafood buyers for assistance in establishing price data for key products. (*Name*), for instance, has been particularly helpful to ABARE in providing fisheries information in the past. As part of the FRDC project, we wish to trial a new system of data collection and would like to enlist your cooperation in providing price data again this year. If this new system is successful, we may be approaching you next year to ask if you would then consider becoming formally involved in providing quarterly data to ABARE for the estimation of fisheries statistics.


In the interim, ABARE is seeking information from you on the average beach price for each species in which you deal. This price does not include marketing and transport costs. To enable ABARE to weight the price data, estimates of the quantity purchased of each of the indicated species are also required. A sample data request form is enclosed.

Any information you supply to ABARE would be treated in the strictest confidence and would not be accessible for use by any other agency. It would only be presented in an aggregate format.

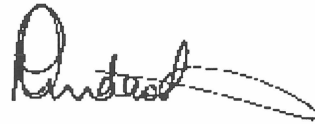
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An ABARE officer will be phoning in the next few days to gather your views on the sample data request form and to explore the possibility of you cooperating with ABARE in this work. In the meanwhile, if you would like to discuss this matter, please feel free to contact Paula Holland from ABARE in the first instance on: (02) 6272 2090, or Rhonda Treadwell on (02) 6272 2043.

Yours faithfully



RHONDA TREADWELL
Branch Manager
ABARE



PETER DUNDAS-SMITH
Executive Director
Fisheries Research and Development
Corporation

20 April 1999

Enclosures: - sample data request sheet
 - sample copy of *Australian Fish Statistics 1998*
 - *From Australia to the Tropics: A Snapshot of the Australian
 Fishing Industry*

Prices paid for Australian fisheries products

June-September quarter 1999

Your name:

Your company:

Your phone number:

Your fax number:

We wish to estimate the average value of fisheries products over June-September 1999. In tables 1-4 that follow, we would like you to provide information on:

- (i) the average beach price for each fish species with which you dealt over June-September 1999. The beach price is the price fishermen receive when they sell freshly landed fish. The beach price should not include transport, marketing and processing costs. **If you are unable to provide beach prices (for instance, if you are a processor or of you cannot recall the beach price for fish) please indicate instead:**
 - (a) the average price for which you sold on the product during over June-September 1999 and
 - (b) the percentage mark-up from the buying price to your selling price (this will include transport, marketing and processing costs)
- (ii) the quantity in kg of each of these fish species with which you dealt over June-September 1999
- (iii) the form of the product when you purchased it from the fisher.

Now please turn overleaf. Thank you.

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Table 1: Prawns

Product forms that may help:

<i>h</i>	headed	<i>c</i>	canned
<i>ht</i>	headed and tailed	<i>m</i>	meat
<i>w</i>	whole		

	Volume/kg	Price	Product form	% Mark-up
TIGER PRAWNS				
U10				
10-20				
15-25				
20-30				
30 +				
Soft & Broken				
BANANA PRAWNS				
U10				
10-20				
15-25				
20-30				
30 +				
Soft & Broken				
ENDEAVOUR PRAWNS				
U10				
10-20				
15-25				
20-30				
30 +				
Soft & Broken				

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Prawns ..2

	Volume/kg	Price	Product form	% Mark-up
KING PRAWNS				
U10				
10-20				
15-25				
20-30				
30 +				
Soft & Broken				
OTHER PRAWNS				
Coral				
Leader				
U10				
10-20				
15-25				
20-30				
30 +				
Soft & Broken				
MIXED PRAWNS				
U10				
10-20				
15-25				
20-30				
30 +				
Soft & Broken				

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Prawns ..3

	Volume/kg	Price	Product form	% Mark-up
PRAWN ROYAL RED				
U10				
10-20				
15-25				
20-30				
30 +				
Soft & Broken				
BUGS AND SQUID				
Bug tail				
Whole bug				
Squid				
OTHER (please specify)				

For these prawn products, please estimate how much higher you think the Sydney Fish Market prices would be than the beach price due to transport, marketing and other costs (e.g., %):

Table 2: Southern bluefin tuna

Product forms that may help:

<i>f</i>	filleted	<i>h</i>	headed
<i>g</i>	gutted	<i>hg</i>	headed and gutted
<i>gg</i>	gilled and gutted	<i>t</i>	tailed
<i>w</i>	whole		

Tuna entering farms (juvenile tuna)

Volume/kg	Beach price	Product form	% Mark-up

Tuna leaving farms (fattened tuna)

Volume/kg	Beach price	Product form	% Mark-up

Mature wild caught tuna

Method caught	Volume/kg	Beach price	Product form	% Mark-up
Longline				
Purse seine				

For your southern bluefin tuna, please estimate how much higher you think the Japanese Fish Market prices would be than the beach price due to transport, marketing and other costs (e.g., %):

Table 3: Other fish (not tunas)

Product forms that may help:

<i>f</i> filleted	<i>h</i> headed	<i>tr</i> trunked
<i>g</i> gutted	<i>hg</i> headed and gutted	<i>ftr</i> finned and trunked
<i>gg</i> gilled and gutted	<i>t</i> tailed	<i>ff</i> finned and filleted
<i>w</i> whole	<i>fn</i> finned	<i>b</i> bait
<i>c</i> canned	<i>ta</i> tails (lobster)	

Fish	Volume/kg	Beach price	Product form	% Mark-up
Barracouta				
Blue Eye				
Bugs				
Dory John				
Dory King				
Dory Mirror				
Flathead Tiger				
Southern Frost Fish				
Gemfish				
Blue Grenadier				
Hapuka				
Leather Jacket				
Ling				
Morwong				
Ocean Perch				
Octopus				
Orange Roughy				
Oreo Spiky				
Oreo Smooth				
Redfish				
Ribaldo				

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Other fish (not tunas) ..2

	Volume/kg	Beach price	Product form	% Mark-up
Fish				
Shark Dog				
Shark Ghost				
Shark Other				
Shark Saw				
Shark School				
Shark Gummy				
Squid Arrow				
Seine Squid				
Stargazer				
Silver Trevally				
Trevalla Deepsea				
Trevalla Spotted				
Trevally White				
Warehou Blue (Tasmanian Trevally)				
Warehou Silver (Spotted Warehou)				
Whiting Redspot (School Whiting)				

For these fish products, please estimate how much higher you think the Sydney Fish Market prices would be than the beach price due to transport, marketing and other costs (e.g., %):

Table 4: Other tuna and billfish

For other tuna and billfish, we recognise that there may be a substantial beach price for tunas sold on the domestic market to those sold overseas. To accommodate this, please assist us by indicating the beach price for these species bound for both the domestic and export market. Where you fill in prices for only one market, we will assume you sell all your 'other tunas and billfish' only to that market.

Product forms that may help:

<i>f</i>	filleted	<i>h</i>	headed
<i>g</i>	gutted	<i>hg</i>	headed and gutted
<i>gg</i>	gilled and gutted	<i>t</i>	tailed
<i>w</i>	whole		

	Domestic market				Export market			
	Volume/kg	Beach price	Product form	% Mark-up	Volume	Beach price	Product form	% Mark-up
<i>Tunas</i>								
Yellowfin								
Skipjack								
Albacore								
Bigeye								
Other tuna (please specify):								
•								
•								
•								

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Other tunas and billfish ../2

	Domestic market				Export market			
	Volume/kg	Beach price	Product form	% Mark-up	Volume	Beach price	Product form	% Mark-up
<i>Billfish</i>								
Broadbill								
Striped marlin								
Other billfish (please specify):								
•								
•								

For other tunas and billfish, please estimate how much higher you think the Sydney Fish Market prices are than the beach price (e.g., 10%):

Please also estimate, where possible, the % of this species nationally that you believe is exported.

B. Trial 2

Letter requesting information

Name

Address

Dear

Collection of fisheries price data

The Australian Bureau of Agricultural and Resource Economics (ABARE) produces an annual report, *Australian Fisheries Statistics*, which provides information on the production and trade of different fish species in Australia. Information in this publication is used widely by fisheries management, industry groups and the banking sector.

The need to continuously improve the accuracy of economic data on the fishing industry was recognised by the Fisheries Research and Development Corporation (FRDC). The FRDC has formed the National Fisheries Economics Statistics Steering committee to review and guide the data needs of Australian fisheries. ABARE is currently undertaking a FRDC funded project to improve the quality of fisheries economic data.

An important component of fisheries statistics is fisheries price data. Traditionally, ABARE has relied on a number of seafood buyers for assistance in establishing price data for key products. As part of the FRDC project, we wish to trial a new system of price data collection and would like to enlist your cooperation in this trial.

For the trial, ABARE is seeking information from you on the average beach price for the species identified on the attached schedule. This beach price should not include marketing and transport costs. It is recognised that in many cases the beach price is not readily available, so we are also seeking information on average marketing and transport costs in order that a beach price can be derived. In setting up the trial, there is also a need for additional information on quantity of fish sold to check the sample selection of each fish species.

Attached is the data schedule showing the fish species that have been selected as being relevant for your business. If you consider that other fish species should also be covered, a blank schedule is attached to allow you to add information for those additional species. A guide for data entry is also attached to assist in completing the schedule.

The sample selection was based on the volume of sales over a six-month period in 1998-99 for fish sold on the domestic and export markets. In most cases, the data required from each survey cooperator cover only a small selection of the species sold by that cooperator. This is to minimise the time and effort needed by you to assist in this trial.

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If the trial proves to be successful then we may contact you again on a regular quarterly basis but only to collect information on the 'Average Beach Price' for each fish species.

The regular data collection would allow a much better determination of the value of each fishery that will meet the following needs:

- increased demand for accurate gross value of production (GVP) and production data at the state, national and international level;
- fishermen's research levies are based on GVP estimates and it is necessary for the determination of those levies to be more consistent and transparent; and
- to determine the allocation of research funding and the payoffs from that research.

As a cooperator, you will also be sent a report containing not only current and recent average price data, but also long-term average price data for the various fish species surveyed.

Any information you supply to ABARE is treated as 'commercial-in-confidence' and would not be made accessible for use by any other agency. Results will only be released in an aggregated format.

It is intended that the analysis of this data will be undertaken in September. To achieve this, it would be appreciated if the schedule can be returned in the enclosed reply paid envelope as early as possible.

If you wish to discuss any issues related to this trial or the data entry, then please contact Cas Johnson on:

Phone (02) 6272 2133.

Fax (02) 6272 2318

E-mail cjohnson@abare.gov.au

Yours sincerely

RHONDA TREADWELL
Manager
Natural Resources Branch

28 August 2000

Enclosures: - data request schedule
 - guide for completing the schedule
 - reply paid envelope

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Schedule for fish, excluding tuna

Financial Period: Average price paid for product for January-June 2000

Contact name: XXXX

Company: XXXX

Address:

Phone number:

Fax number:

mobile

yes/no	Involvement in the industry
no	ONLY Catch - on sold to receiver
no	ONLY Catch - on sold (export/domestic) retail/wholesale
no	ONLY Catch and purchase for on selling to receiver
yes	Catch and purchase for on selling (export/domestic) retail/wholesale
no	ONLY Purchase for on selling to receiver
no	ONLY Purchase for on selling (export/domestic) retail/wholesale
?	Other - eg bait

Question: yes/no
 do you consider the species identified are appropriate for your enterprise?
 would you be prepared to provide this data on a monthly basis?
 would you be prepared to provide this data plus other species on a monthly basis?
 (- based on your judgement that they should be included)
 is there a difference between caught and sold fish volumes?

yes/no

Timing of questions:

Months of quarter/year

- seasonality

Week of month

Day of week

Time of day?

strongly seasonal
data should be monthly
movements around month, but average of month would be OK
no particular day
no particular time

PURCHASE AND OWN CATCH - for on selling (retail/wholesale/export)

Species	MONTHLY VOLUME			Average 'BEACH' price	Does the price include transport & handling	Deductions for purchasing		Proportion exported
	Own catch	Other fish purchase	TOTAL FISH			Transport cost	Marketing handling processing - to wholesale retail port	
	(kg)	(kg)	(kg)	(\$/kg)	(yes/no)	(\$/kg)	(\$/kg)	(%)
Blue grenadier								
2000	kg	kg	kg	\$/kg	yes/no	\$/kg	\$/kg	%
January								
February								
March								
April								
May								
June								
FULL YEAR - 1999-00								
Spotted warehou								
2000	kg		\$	\$/kg	yes/no	\$/kg	\$/kg	%
January								
February								
March								
April								
May								
June								
FULL YEAR - 1999-00					no			

DETERMINING PRICES PAID

Schedule for fish, excluding tuna (continued)

1st Other dory (not John and Mirror Dory)								
2000	<i>kg</i>	\$	\$/kg	yes/no	\$/kg	\$/kg	%	
January								
February								
March								
April								
May								
June								
FULL YEAR - 1999-00								

2nd Orange roughy								
2000	<i>kg</i>	\$	\$/kg	yes/no	\$/kg	\$/kg	%	
January								
February								
March								
April								
May								
June								
FULL YEAR - 1999-00								

Comments:

'COMMERCIAL-IN-CONFIDENCE'

Please return schedule by early SEPTEMBER

DETERMINING PRICES PAID

Schedule for tuna

Financial Period: Average price paid for product for January-June 2000

Contact name: XXXX

Company: XXXX

Position:

Address:

Phone number:

Fax number:

mobile

yes/no	Involvement in the industry
no	ONLY Catch - on sold to receiver
yes	ONLY Catch - on sold (export/domestic) retail/wholesale
no	ONLY Catch and purchase for on selling to receiver
no	Catch and purchase for on selling (export/domestic) retail/wholesale
no	ONLY Purchase for on selling to receiver
no	ONLY Purchase for on selling (export/domestic) retail/wholesale
no buy all bait	Other - eg bait

Question: do you consider the species identified are appropriate for your enterprise?
 would you be prepared to provide this data on a monthly basis?
 would you be prepared to provide this data plus other species on a monthly basis?
 (- based on your judgement that they should be included)

yes/no
yes
to check
no additional

Timing of questions:

Months of quarter/year

- seasonality

Week of month -

Day of week

Time of day?

Prepares monthly reports for boat, so should be simple to do

Monthly data would be best - calculate averages from actual data

n/a

no day better than another

mid-day for contact

OWN CATCH - for on selling (retail/wholesale/export)

Species	TOTAL Own catch			Average 'BEACH' price			% exported		
	kg	\$/kg	%	kg	\$/kg	%	kg	\$/kg	%
(whole fish) 2000	Big Eye Tuna			(whole fish) 2000			Yellowfin Tuna		
January				January					
February				February					
March				March					
April				April					
May				May					
June				June					
FULL YEAR - 1999-00				FULL YEAR - 1999-00					

(whole fish) 2000	Albacore Tuna		
kg	\$/kg	%	
January			
February			
March			
April			
May			
June			
FULL YEAR - 1999-00			

Comments:

'COMMERCIAL-IN-CONFIDENCE'

Please return schedule by early SEPTEMBER

DETERMINING PRICES PAID

Schedule for prawns

Financial Period: Average price paid for product for January-June 2000

Contact name: **XXX**

Company: **XXXX**

Position:

Address:

Phone number:

Fax:

Mobile:

Involvement in the industry

ONLY Catch - on sold to receiver

ONLY Catch - on sold (export/domestic) retail/wholesale

ONLY Catch and purchase for on selling to receiver

ONLY catch and purchase for on selling (export/domestic) retail/wholesale

ONLY Purchase for on selling to receiver

ONLY Purchase for on selling (export/domestic) retail/wholesale

Other - eg bait

yes/no

Coverage of species sold

Do you consider the species identified are appropriate for your enterprise?

Are there other species that should be included for your business? (if yes please add to attached sheet)

Would you be prepared to provide price data in future survey?

yes/no

Should the price data on these species be provided on a monthly or quarterly basis?

quarterly/monthly

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Timing of survey

If price data is provided monthly, how soon after the end of the month would it be available?

If price data is provided quarterly how soon after the end of the quarter would it be available?

Is there a preferred time of the week for contact?

Day of week?

Time of day?

weeks

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weeks

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SIZE	Under 10			10 - 20			15 - 25		
	Own catch	Other purchase	Average 'BEACH' price	Own catch	Other purchase	Average 'BEACH' price	Own catch	Other purchase	Average 'BEACH' price
Banana Prawn									
2000	kg	kg	\$/kg	kg	kg	\$/kg	kg	kg	\$/kg
January									
February									
March									
April									
May									
June									
FULL YEAR - 1999-00									
King Prawn									
2000	kg	kg	\$/kg	kg	kg	\$/kg	kg	kg	\$/kg
January									
February									
March									
April									
May									
June									
FULL YEAR - 1999-00									

Comments:

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'COMMERCIAL-IN-CONFIDENCE'

Please return schedule by early SEPTEMBER

DETERMINING PRICES PAID

Schedule for prawns (continued right)

HANDING AND TRANSPORT COSTS

Does the 'average beach price' include transport & handling?	yes/no
	<input type="text"/>
<i>Please provide an estimate, even if the price is a 'beach price'</i>	
What is the average transport cost?	\$/kg
What is the average handling, processing cost - to wholesale/port?	
	<input type="text"/>

20 - 30			30 +			Broken			Proportion exported
Own catch	Other purchase	Average 'BEACH' price	Own catch	Other purchase	Average 'BEACH' price	Own catch	Other purchase	Average 'BEACH' price	
kg	kg	\$/kg	kg	kg	\$/kg	kg	kg	\$/kg	
kg	kg	\$/kg	kg	kg	\$/kg	kg	kg	\$/kg	%

Guide for completing the schedule

Involvement in industry

- Write yes in the one box that best describes your business.

Coverage of species

- These questions are being asked to determine if we are collecting prices for the relevant species that you sell, and if we need to add any other species, and to determine, in your opinion, if this data would be made available on a regular basis, were the project to proceed.
- The only information needed in a production system would be price data.

Timing of questions

- These questions are being asked to determine the most convenient time during a quarter or month to obtain regular price data.

Seasonality

The survey results will be published on a quarterly basis, but for a number of species it may be necessary to obtain monthly data to better determine the correct quarterly price for that species. There are questions asking for information on the extent of seasonality for the product that you sell.

- The schedule has the facility to enter monthly data if there is a strong seasonal monthly movement in both price and volume of fish sales.

Pricing data

The price data required is the 'beach price' for each species of fish.

- If the monthly price and sale volumes are relatively stable, then only data for the quarter is needed. In this case, enter the March quarter data in the March month row, and the June quarter data in the June month row.

Comments

Use this box to explain or comment on the proposed data collection or information you have provided.

Full year data

At the bottom of each species data table there is a row requesting the value for the full financial year. This information is needed to verify and check the sample structure.

Deadline

We are asking for this information to be sent, in the reply paid envelope, by Friday 25 August. We wish to obtain this information close to the final month of the survey.

References

ABARE 2001, *Australian Fisheries Statistics 2000*, Canberra.

Austin, B., Thrower, S. and Snow, A. 1997, *Australian Seafood Industry Directory 1997-99*, Australian Seafood Industry and Advisory Service, Queensland.

INFOFISH 2001, *INFOFISH Trade News No11/2001*, Malaysia.

Sydney Fish Markets 2001, electronic monthly report.

Tuna Boat Owners Association of Australia Inc 2000, *NEWSLETTER, September 2000*, South Australia.