

# PACIFIC ISLANDS FISHERIES SCIENCE CENTER



## Hawaii Retail Seafood Markets: Observations from Honolulu (2007-2011)

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## ABSTRACT

This report provides a summary of retail (consumer-level) fish price data collected from Honolulu seafood markets during the period 2007 to 2011. A small sample ( $n=7$ ) of local seafood retailers was selected for participation in the data collection and monitoring effort. These included owners, operators, or representatives of local seafood outlets and both local and remotely owned grocery stores and supermarkets. Retailers were visited on a weekly basis and posted price data were collected for fish species and product forms common in the marketplace. Observations regarding country of origin labeling practices were documented in conjunction with pricing. The goal of this report is to advance a preliminary understanding of: the prevalence of local species and product forms in Honolulu retail fish markets; price differentials along the value chain; consumer demand for various species; and the role of imports in the Hawaii seafood market. Data summaries include: retail market presence/absence estimates; weekly retail price averages by species, product form and origin; retail pricing time series by month; and annual retail price spreads for the study period.



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## INTRODUCTION

The initial motivation for this effort was to improve understanding of the retail (consumer-level) seafood sector in Honolulu, specifically as related to the prevalence of, and pricing for local bottomfish species. Although, given the observed importance of pelagic, reef, and other species in Hawaii markets, the study was ultimately expanded to examine all the principal species groups and product forms common in the local marketplace. While previous research quantified the contribution of the retail sector in terms of volume (Higuchi and Pooley, 1985), a detailed examination of retail pricing is absent in the literature. This document draws on PIFSC economic monitoring data for the period 2007 to 2011 to cast light on pricing trends in the Hawaii retail seafood sector.

## METHODS

A Pacific Islands Fisheries Science Center (PIFSC) retail price monitoring program was established in November 2006 and remained active between 2007 and 2011. A small non-probabilistic sample of Honolulu retailers ( $n=7$ ) was selected to include locally-owned grocery stores, seafood specialty retailers, and large national supermarket chains, thereby representing a variety of viable consumer outlets. During the data collection period, one establishment went out of business and an alternative site with similar characteristics was added. PIFSC economists and survey assistants visited the sample of retail establishments on a weekly basis, with the day of the week varying on occasion. No data were collected on weekends. Fieldwork began in November 2006 and continued through the end of 2011. Posted prices in dollars per pound for prevalent fish species were recorded. All prices in this report are nominal prices (not corrected for inflation). The average retail price ( $\bar{P}_{R,t}$ ) for week ( $t$ ) is defined as the average of all observed prices across retail outlets ( $i$ ) offering the fish in a given week.

$$\bar{P}_{R,t} = \frac{1}{n} \sum_{i=1}^n P_{R,i}$$

A diverse range of product forms are found in Honolulu retail markets, including whole fish, loins, fillets, steaks, and poke. *Poke* is cubed raw fish mixed with seasonings such as soy sauce, onions, and peppers, and is a very common form of tuna (*‘ahi*) in Hawaii retail markets. Prices associated with these various products are noted for analysis. To the extent possible, country of origin was recorded to allow consideration of price differentials between locally-caught and imported fish. We consider any fish caught in Hawaiian waters to be local fish. Some retailers sell particular fish species at “*market price*,” meaning that they do not post prices. In these instances, the data represent the prices quoted by the retailer when asked by the surveyor. The remainder of this section discusses methodological issues related to species groups, product forms and quality, as well as calculations of market presence-absence, price spreads, and price premiums.

## Species Groups

The fish species covered in this report are broadly aggregated into four major categories: tunas, bottomfish, reef fish, and non-tuna pelagic species. Bottomfish species and non-tuna pelagic species are often marketed by common species name. However, the classification of retail tuna prices by species is somewhat problematic due to labeling inconsistencies across retail outlets. That is, Honolulu-based retailers very often market both bigeye tuna (*Thunnus obesus*) and yellowfin tuna (*Thunnus albacares*) as 'ahi in the marketplace. The species are therefore treated collectively as 'ahi for purposes of this analysis.

Reef fish species are also subject to inconsistent identification by local retailers. Some retailers market reef fish by their common species names (such as weke ula), while others market them more broadly by common family name (such as goatfish). The most common reef fish encountered during the data collection process are listed in Table 3. While retail prices are provided for the most common species (Table 18), for ease of reporting and to more closely align with management practices, the majority of retail prices in the tables are presented by common family. One exception is *kumu* (white saddle goatfish) which is often offered in the market at a significantly higher price than other goatfish, and as such is reported separately. A similar case involves a wrasse known as *nabeta* (Peacock wrasse) which also is offered at a significantly higher price than other wrasse species. Although this fish was not reported separately, since it is fairly uncommon in the marketplace – its relatively high value is worth noting since it helps to explain high standard deviations present in wrasse price averages and price spreads.

## Product Forms and Quality

The majority of bottomfish and reef fish are marketed fresh and whole in Hawaii retail outlets. Seafood specialty retailers will often clean the fish at no extra charge, although supermarkets are more variable in whether a fish is cleaned prior to packaging. The tunas and non-tuna pelagic species are almost exclusively marketed as fillets or steaks. However, some are found in *poke* form.

Notable among the tunas is the distinct quality differentiation found in loin cuts. While retailers vary slightly in the exact terminology used in grading tuna, there are distinct and consistent price differentials in the market based on quality. In this report we categorize the quality grades of 'ahi as *premium*, *high*, and *good*. *Premium* fish are often bright red and typically labeled as sashimi or chu toro. This product is meant to be consumed raw, and is usually marketed in a small block form. *High* grade fish can be eaten raw, but is often marketed in a loin or larger fillet form, with a slightly darker red color. Fish in the *good* category may be eaten raw, but it is generally recommended that it be cooked or at least seared, and is marketed in loin, fillet or steak forms. Lastly, while rarely identified as such in the markets, small 'ahi that are sold whole (typically less than 15 pounds) are almost exclusively yellowfin tuna, at least according to retailers.

## Market Presence-Absence

For tunas, reef fish, and non-tuna pelagic species, the market presence-absence calculation is simply the number of weeks with an observed retail price divided by the total number of weeks sampled in a given year. Market presence-absence is presented by species, product form, and origin.

The presence-absence of bottomfish species requires some clarification since the main Hawaiian Islands (MHI) bottomfish fishery underwent a number of seasonal closures over the course of the retail market monitoring program. The dashed boxes in Tables 23-24 denote months that the MHI fishery was closed. For local bottomfish, presence-absence is calculated as the number of weeks with an observed retail price divided by the total number of weeks the fishery was open during a given year. This explains why, for example, local onaga was observed 94% of the weeks in 2010 (Table 10) despite a nearly four-month seasonal closure (Table 23). However, it should be noted that, prior to 2010, some markets sold “local” bottomfish from the Northwestern Hawaiian Islands (NWHI) fishery during the MHI closure periods, and these fish are considered local in the presence-absence calculations.

## Price Spread and Premium

To investigate retail price spreads, ex-vessel price data from the Hawai’i Division of Aquatic Resources (HDAR) dealer database [Metadata at: <https://inport.nmfs.noaa.gov/inport/item/5610>] were summarized at the weekly time scale to align with the retail monitoring program. A week was defined to be Sunday through Saturday. The calculated estimate of average weekly retail price spread ( $\bar{P}_S$ ) in a given year is simply the mean of the difference between the average weekly retail price ( $\bar{P}_{R,t}$ ) and weekly ex-vessel price ( $P_{F,t}$ ) for weeks ( $t$ ) over the course of the year ( $T$ ):

$$\bar{P}_S = \frac{1}{T} \sum_{t=1}^T (\bar{P}_{R,t} - P_{F,t})$$

While this price spread calculation is rather straightforward for bottomfish, reef fish, and non-tuna pelagics, it is a bit more complicated for tunas given the aforementioned consolidation of bigeye and yellowfin as ‘*ahi*’ in the marketplace, and we impose reasonable assumptions to allow for price spread calculations. First, we assume that all of the highest quality local fish are bigeye tuna, and as such we calculate the retail price spread for *premium* tuna to be the difference between retail tuna prices and weekly ex-vessel bigeye tuna prices. For the *high* quality distinction, we calculate the retail spread relative to the average weekly ex-vessel price for bigeye and yellowfin tuna combined, as this product form is likely some undetermined mix of

the two species. Lastly, we assume that all *good* quality products at retail markets are yellowfin tuna and so we calculate the price spread relative to average weekly ex-vessel price for yellowfin tuna.

For Hawaii bottomfish, since fresh imports of seemingly comparable quality (from the consumer perspective) were present in the marketplace, we calculate an estimate for the average weekly local price premium ( $\bar{P}_p$ ) in a given year as the mean of the difference between the weekly retail price for locally-caught ( $\bar{P}_{L,t}$ ) and imported ( $\bar{P}_{M,t}$ ) bottomfish for weeks ( $t$ ) over the course of the year ( $T$ ):

$$\bar{P}_p = \frac{1}{T} \sum_{t=1}^T (\bar{P}_{L,t} - \bar{P}_{M,t})$$

$$\text{where } \bar{P}_{L,t} = \frac{1}{n} \sum_{i=1}^n P_{L,i} \text{ and } \bar{P}_{M,t} = \frac{1}{n} \sum_{i=1}^n P_{M,i}$$

## DATA CAVEATS

This monitoring program, while structured, necessarily involved a somewhat informal data collection process. Care should therefore be taken when interpreting trends or drawing conclusions from the data summaries. There are many considerations in understanding price formation at the retail market level, and our monitoring program cannot control for or address all of them in a robust way. Interpretation of trends in the Hawaii retail seafood market should include consideration of the following factors:

- *Sourcing and Supply* – retail markets in Honolulu source product directly from fishermen, the United Fishing Agency (UFA) auction, and at times from brokers, other dealers, and wholesalers. An individual fish price at a retail outlet may reflect the number of “hands” that the fish has passed through and undoubtedly reflects total market supply of which the retail sector is but one channel, and this channel is not well understood.
- *Quality* – the Honolulu retail seafood market is dominated by fresh fish (local fish are rarely sold frozen) so a retail price will inherently reflect the quality of the individual fish and retailers typically do not ‘grade’ fish, with the exception of ‘*ahi*’.
- “*Market Price*” – there is little opportunity to verify prices in instances where the prices are not posted.
- *Geographic variability* – this analysis considers only a small sample of retailers in downtown Honolulu; additional research is needed to better understand potential variability in retail supply and pricing behavior across the State of Hawaii.

By visiting multiple retail establishments to arrive at weekly average prices across diverse outlets we sought to control for some of the aforementioned uncertainties. However, keeping these caveats in mind, the program does provide important findings regarding market presence/absence which elucidates local consumer demand, and the data summaries provide weekly price estimates and monthly time series which allows for calculation of price spreads and price premiums from our data collection. The time series presented in this report are likely reflective of general retail pricing trends faced by Honolulu seafood consumers during 2007–2011 and provide valuable insights into this poorly understood sector.

## RESULTS

A complete accounting of all the species, product forms, and origin encountered during the retail monitoring program is presented in Tables 1-4. The majority of local fish is marketed fresh, but as evident in Tables 1-4, many locally-caught species share the market with imported substitutes. In order to provide some context for the retail monitoring data summaries, commercial market trends over the course of the monitoring program are provided in Tables 5-8. This information includes ex-vessel commercial market supply, the number of fishers reporting fish sales and the number of dealers buying fish directly from fishermen, by species or species group. The latter measure is subject to underreporting and may not accurately account for activity of brokers and wholesale purchases and transfers. Data for Tables 5-8 are taken from the Hawai'i Division of Aquatic Resources (HDAR) dealer database. We do not report import levels due to uncertainties surrounding the actual market contributions from imported fish, especially in light of difficulties in accounting for transshipments from the US mainland to Hawaii. It should also be noted that these ex-vessel commercial market supply quantities (Tables 5-8) are not reflective of retail market supply. Additional research, similar to Higuchi and Pooley (1985) would need to be revisited to accurately determine the volume of commercial seafood that serves consumer retail markets.

An understanding of market composition, consumer demand for species and product forms, and the cultural importance of different species can be inferred from market presence-absence findings, as shown in Tables 9-12. It is clear that: (a) tunas are a staple in Honolulu consumer markets, with nearly 100% availability for local *'ahi* over the study period, and (b) marketers of locally-caught tuna face strong competition from dealers who import seafood products from elsewhere into the Hawaii marketplace. Regarding bottomfish species, there is strong consumer preference for onaga, opakapaka, and ehu and there is evidence that retailers have increased availability of convenient fillet product forms for these species in recent years. The reef fish families presented in Table 11 are all prevalent in the market and generally show stable to increasing market presence during our study period, suggesting ongoing levels of strong consumer demand. Non-tuna pelagic species such as mahimahi and ono also demonstrated stable to growing market presence during our study period.

Average weekly retail prices (Tables 13-20) and average monthly time series data (Tables 21-27) are summarized in this report. All prices are presented as nominal (not corrected for inflation) dollars per pound. It is clear that there are strong price differentials across grades of tuna, and that whole *'ahi* (yellowfin tuna, generally 15 pounds or less) and whole skipjack tuna are some

of the most economical options for tuna consumers in Hawaii markets. Bottomfish species also exhibit distinct price points with onaga generally commanding a few dollars more per pound than ehu or opakapaka. An important aspect of the monthly time series data for bottomfish is evidence of seasonality in demand and pricing, in particular for onaga, the price of which often peaks around the winter holidays. Hawaii reef fish prices vary considerably by species and family, though kumu has consistently been the reef species with the highest individual retail price. At the family level, members of the squirrelfish family command the highest retail price. Non-tuna pelagic species are comparably priced, although mahimahi and opah appear to be the subjects of increasing consumer price trends during the study period.

Lastly, this effort includes calculation of annual average weekly retail price spreads (Tables 28-29 and 31-32) to give managers a systematic look at consumer-level prices relative to ex-vessel prices (the price fishermen receive). For tunas, it is clear that *'ahi* consumers face significant price increases relative to ex-vessel prices; reflective of processing, quality differences, and attributes associated with various product forms and species. The negative price spread for whole *'ahi* (yellowfin tuna generally 15 pounds or less) simply means that retail prices for these products were below the ex-vessel price for all yellowfin tuna and may suggest lower perceived quality of these products. Local bottomfish price spreads show evidence of inter-species variability and are relatively high, despite minimal processing, if any, in providing a product to consumers. Onaga is subject to the largest price spread, followed by opakapaka, ehu, and gindai, all of which tend to experience similar price spreads. Additionally, for bottomfish we derive a local price premium by comparing prices for locally-caught and imported bottomfish, when applicable (Table 30). Findings suggest that local bottomfish generally command a sizeable price premium, although cases of negative price spreads likely reflect quality differences. Reef fish price spreads appear lower than those noted for bottomfish. Sales records for jacks, squirrelfish and emperor families indicate relatively extensive price spreads for these families. Lastly, non-tuna pelagics, much like tunas, range in product quality and attributes which is evident in price spreads that approximate tuna species.

This research has provided a valuable glimpse into the Honolulu retail sector and should serve to motivate more extensive and deliberate research in the future.

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Table 1.--Retail tuna product forms, by origin.

Species	Origin	Product Forms				
		Fresh Whole	Fresh Loin/Fillet/Steak	Prev. Frozen Loin/Fillet/Steak	Fresh Poke	Prev. Frozen Poke
Skipjack ( <i>Aku</i> )	Local	X	X			X
	Import		X	X		
Albacore ( <i>Tombo</i> )	Local		X			
	Import		X			
Bigeye/ Yellowfin ( <i>'ahi</i> )	Local	X	X	X	X	
	Import		X	X	X	X

Table 2.--Retail bottomfish product forms, by origin.

Species	Origin	Product Forms					
		Fresh Whole	Prev.Frozen Whole	Frozen Whole	Fresh Fillet	Prev.Frozen Fillet	Frozen Fillet
Onaga	Local	X			X		
	Import	X			X		X
Opakapaka	Local	X			X		
	Import	X	X	X	X	X	X
Ehu	Local	X			X		
	Import	X					
Gindai	Local	X					
	Import	X					
Uku	Local	X			X		
	Import	X			X		
Other Deep 7 <sup>a</sup>	Local	X			X		
Ta'ape	Local	X					
Red Snapper	Import	X			X	X	X
Tai Snapper	Import	X	X	X	X	X	

<sup>a</sup>These include: hapu'upu'u, kalekale, and lehi.

Table 3.--Retail reef fish product forms, by origin.

Common Family	Common Species	Origin		Product Forms	
		Local	Import	Fresh Whole	Fresh Fillet
Kumu Goatfish	Weke Kumu	X		X	
	Red Weke	X		X	
Non-Kumu Goatfish	Green Weke	X		X	
	Weke Moana	X		X	
	Weke 'Ula	X		X	
Parrotfish	Uhu	X		X	X
Snapper	Toau	X		X	
Squirrelfish	Menpachi	X		X	
	Kala	X		X	
	Kalalei	X		X	
	Kole	X		X	
	Maiko	X		X	
	Manini	X		X	
	NaeNae	X		X	
	Opelu Kala	X		X	
	Palani	X		X	
	Pualu	X		X	
Bigeye Emperor	Mu	X		X	
Wrasse	A'awa	X		X	
	Nabeta	X		X	
Bigeye Scad	Akule	X		X	
Mackerel Scad	Opelu	X		X	
	Lai	X		X	
Jacks	Papio	X	X	X	X
	Ulua	X		X	X

Table 4.--Retail non-tuna pelagic fish product forms, by origin.

Species	Origin	Product Forms				
		Fresh Whole	Fresh Fillet	Prev.Frz Fillet	Frozen Fillet	Poke
Mahimahi	Local	X	X			
	Import		X	X	X	
Ono	Local	X	X			
	Import		X			
Striped Marlin (Nairagi)	Local		X			X
Blue Marlin (Kajiki)	Local		X			X
	Import					X
Broadbill Swordfish (Shutome)	Local		X	X	X	
	Import			X		
Opah	Local		X			
Monchong	Local		X			



Table 5.--Hawaii ex-vessel tuna market trends.

	Year	Bigeye	Yellowfin	Total 'ahi <sup>a</sup>	Albacore	Skipjack
Annual Pounds Sold	2007	11,105,439	2,933,357	14,038,795	682,235	721,260
	2008	11,526,476	2,898,730	14,425,205	733,744	908,146
	2009	9,272,047	2,274,235	11,546,283	605,257	709,160
	2010	11,242,556	2,185,398	13,427,954	834,355	296,205
	2011	11,123,290	3,094,979	14,218,268	1,461,749	627,218
Number of fishers selling fish (avg/mo/yr)	2007	128	309	331	98	103
	2008	134	332	347	89	140
	2009	129	322	340	97	127
	2010	136	289	311	87	102
	2011	124	310	319	109	124
Number of dealers selling fish (avg/mo/yr)	2007	9	45	46	10	20
	2008	12	53	55	9	26
	2009	12	55	56	10	27
	2010	14	43	45	6	21
	2011	11	42	44	7	23

<sup>a</sup> Total 'ahi = bigeye + yellowfin, subject to rounding differences

Table 6.--Hawaii ex-vessel bottomfish market trends.

	Year	Onaga	Opakapaka	Ehu	Gindai	Uku	Ta'ape
Annual Pounds Sold	2007	79,427	87,358	16,463	3,256	148,840	29,485
	2008	71,529	95,703	15,323	2,437	137,347	37,587
	2009	65,405	132,383	22,108	3,631	107,030	35,585
	2010	58,435	104,765	19,414	1,931	109,060	27,562
	2011	39,657	84,789	14,870	1,603	93,802	19,125
Number of fishers selling fish (avg/mo/yr)	2007	36	51	36	14	51	30
	2008	33	52	33	12	56	36
	2009	29	76	51	19	57	40
	2010	64	97	64	25	65	45
	2011	56	89	58	20	61	35
Number of dealers selling fish (avg/mo/yr)	2007	11	14	12	5	20	13
	2008	11	14	11	5	22	15
	2009	20	25	19	8	23	15
	2010	21	27	19	8	25	15
	2011	18	27	20	10	21	12

Table 7.--Hawaii ex-vessel reef fish market trends.

	Year	Kumu Goatfish	Non-Kumu Goatfish	Parrot -fish	Snapper	Squirrel -fish	Surgeon -fish	Bigeye Emperor	Wrasse	Bigeye Scad	Mackerel Scad	Jacks
Annual Pounds Sold	2007	2,545	26,475	43,497	2,336	33,009	85,363	3,320	2,551	267,581	194,264	702
	2008	3,909	36,774	44,595	2,983	57,614	78,875	3,138	3,626	119,709	163,933	1,450
	2009	6,107	47,229	48,000	3,605	50,264	83,757	3,808	5,410	180,906	204,846	940
	2010	10,279	61,976	62,856	5,121	88,293	112,609	6,528	5,212	248,672	204,562	2,279
	2011	10,092	44,718	62,414	4,415	55,876	97,626	4,962	4,579	152,646	156,758	1,645
Number of fishers selling fish (avg/mo/yr)	2007	11	35	25	16	38	35	8	20	34	39	2
	2008	15	44	29	21	46	38	8	23	24	41	2
	2009	21	48	35	24	56	44	11	28	42	51	2
	2010	24	51	29	27	59	38	11	31	49	50	5
	2011	19	44	25	21	43	33	9	25	38	44	4
Number of dealers selling fish (avg/mo/yr)	2007	6	15	13	7	16	14	5	9	26	30	2
	2008	8	17	15	8	19	16	5	8	20	28	2
	2009	10	18	15	8	21	17	5	11	27	31	2
	2010	10	18	14	9	23	15	6	12	29	31	4
	2011	9	16	13	8	19	14	5	11	25	31	3

Table 8.--Hawaii ex-vessel non-tuna pelagic fish market trends.

	Year	Mahimahi	Ono	Nairagi	Kajiki	Shutome	Opah	Monchong
Annual Pounds Sold	2007	1,309,010	700,626	492,101	582,363	2,515,270	1,225,976	592,791
	2008	1,183,228	835,140	816,708	713,554	2,648,410	1,312,690	671,503
	2009	1,243,002	591,132	530,802	834,363	2,681,108	1,883,247	626,577
	2010	1,444,953	586,037	272,461	698,995	2,174,959	1,813,657	589,083
	2011	1,339,286	548,919	725,211	707,400	1,792,975	1,563,002	427,146
Number of fishers selling fish (avg/mo/yr)	2007	353	316	104	108	85	93	105
	2008	353	312	106	142	82	94	105
	2009	333	303	104	125	85	90	103
	2010	325	272	82	100	82	88	100
	2011	354	256	109	127	76	88	100
Number of dealers selling fish (avg/mo/yr)	2007	38	34	7	10	4	2	5
	2008	44	42	7	15	4	2	6
	2009	45	41	7	13	5	2	7
	2010	38	34	3	9	4	1	8
	2011	37	31	5	10	3	1	6

Table 9.--Retail market presence (share of weeks): Tuna, by origin, product form, and quality.

Year	Origin	Bigeye/Yellowfin ( <i>'ahi</i> )						Skipjack ( <i>Aku</i> )		Albacore ( <i>Tombo</i> )
		Whole	Poke	Fillet/Block				Whole	Fillet	Fillet
				All	Premium	High	Good			
2007	Local	0.55	0.84	1.00	1.00	1.00	0.98	0.73	0.27	0.80
	Import	-	1.00	0.53	0.39	0.02	0.31	-	0.00	0.00
2008	Local	0.70	0.96	0.96	1.00	0.88	0.98	0.70	0.42	0.68
	Import	-	1.00	0.18	0.02	0.00	0.16	-	0.00	0.02
2009	Local	0.62	0.96	1.00	0.98	0.98	0.96	0.76	0.44	0.58
	Import	-	1.00	0.60	0.10	0.02	0.54	-	0.00	0.00
2010	Local	0.85	1.00	1.00	0.96	0.98	0.98	0.73	0.29	0.94
	Import	-	1.00	0.85	0.17	0.50	0.73	-	0.06	0.00
2011	Local	0.94	1.00	1.00	1.00	1.00	0.90	0.92	0.51	0.88
	Import	-	1.00	0.76	0.29	0.47	0.51	-	0.02	0.06

Table 10.--Retail market presence (share of weeks): Bottomfish, by origin, product form, and quality.

Year	Form	Origin	Onaga	Opakapaka	Ehu	Gindai	Other Deep 7 <sup>a</sup>	Uku	Taape	Red Snapper	Tai Snapper
2007	Whole	Local	0.88	0.92	0.82	0.48	0.39	0.51	0.75	-	-
		Import	0.83	0.45	0.36	0.21	0.00	0.08	-	0.28	0.96
	Fillet	Local	0.03	0.15	0.09	0.00	0.03	0.15	-	-	-
		Import	0.53	0.74	0.02	0.00	0.00	0.09	-	0.02	0.02
2008	Whole	Local	0.61	0.65	0.68	0.48	0.45	0.71	0.71	-	-
		Import	0.78	0.78	0.22	0.06	0.00	0.02	-	0.28	0.98
	Fillet	Local	0.23	0.29	0.16	0.00	0.48	0.35	-	-	-
		Import	0.08	0.92	0.00	0.00	0.00	0.02	-	0.18	0.02
2009	Whole	Local	0.83	0.79	0.86	0.40	0.43	0.60	0.70	-	-
		Import	0.44	0.36	0.12	0.04	0.04	0.04	-	0.30	1.00
	Fillet	Local	0.07	0.21	0.05	0.00	0.07	0.16	-	-	-
		Import	0.06	0.66	0.00	0.02	0.00	0.00	-	0.00	0.08
2010	Whole	Local	0.94	0.94	0.91	0.64	0.52	0.73	0.85	-	-
		Import	0.52	0.44	0.21	0.02	0.00	0.06	-	0.25	0.98
	Fillet	Local	0.45	0.61	0.12	0.00	0.15	0.54	-	-	-
		Import	0.00	0.98	0.00	0.00	0.00	0.06	-	0.02	0.37
2011	Whole	Local	0.93	0.85	0.81	0.19	0.74	0.63	0.80	-	-
		Import	0.37	0.16	0.04	0.02	0.00	0.00	-	0.22	0.96
	Fillet	Local	0.41	0.37	0.00	0.00	0.07	0.22	-	-	-
		Import	0.06	0.31	0.00	0.00	0.00	0.00	-	0.00	0.18

<sup>a</sup> These include: hapu'upu'u, kalekale, and lehi.

Table 11.--Retail market presence (share of weeks): Local reef fish, by family.

Year	Kumu Goatfish	Non-Kumu Goatfish	Parrot -fish	Snapper	Squirrel -fish	Surgeon -fish	Bigeye Emperor	Wrasse	Bigeye Scad	Mackerel Scad	Jacks <sup>a</sup>
2007	0.27	0.75	0.92	0.25	0.49	0.92	0.25	0.41	0.69	0.59	0.16
2008	0.51	0.90	0.90	0.35	0.73	0.94	0.39	0.39	0.69	0.71	0.67
2009	0.66	0.70	0.98	0.50	0.82	0.88	0.80	0.40	0.86	0.78	0.58
2010	0.71	0.98	0.98	0.75	0.96	1.00	0.69	0.58	0.88	0.88	0.96
2011	0.76	0.96	0.92	0.73	0.98	0.98	0.67	0.78	0.86	0.78	0.92

<sup>a</sup> Presence of jacks in either whole or fillet form.

Table 12.--Retail market presence (share of weeks): Local non-tuna pelagic fish<sup>a</sup>.

Year	Mahimahi	Ono	Nairagi	Kajiki	Shutome	Opah	Monchong
2009 <sup>b</sup>	0.73	0.69	0.46	0.92	0.19	0.69	0.58
2010	1.00	0.81	0.46	0.83	0.58	0.92	0.56
2011	1.00	0.71	0.69	0.98	0.55	0.94	0.43

<sup>a</sup> All non-tuna pelagics were marketed in loin, fillet, or steak form.

<sup>b</sup> In 2009, data for mahimahi, ono, shutome, opah, and monchong were only collected between June and December. However, nairagi and kajiki were collected all 12 months in 2009.

Table 13. --Average weekly retail price (\$/pound): Fresh local tuna by species, product form, and quality.

Product Form	Grade		2007	2008	2009	2010	2011
'ahi Whole	All	Avg	2.16	2.10	2.77	2.79	2.53
		St Dev	0.42	0.61	0.80	0.96	0.64
		Min	1.71	1.00	1.50	1.75	1.00
		Max	3.50	4.00	4.62	7.22	3.95
'ahi Poke	All	Avg	9.52	10.20	11.10	12.57	12.38
		St Dev	1.20	0.80	0.95	1.09	1.07
		Min	5.95	8.28	6.99	10.48	9.99
		Max	11.99	11.96	12.49	14.99	15.22
'ahi Loin/Fillet	All	Avg	16.29	16.45	16.96	19.85	21.29
		St Dev	2.77	2.47	2.59	3.13	2.25
		Min	11.86	11.49	13.10	11.48	15.87
		Max	27.15	23.75	24.53	24.98	27.14
	Premium	Avg	23.57	23.82	24.15	26.16	26.52
		St Dev	2.74	2.69	2.38	3.14	2.17
		Min	18.90	17.95	18.62	17.95	21.98
		Max	32.05	29.31	30.99	33.32	31.55
	High	Avg	15.95	15.82	15.58	17.23	15.38
		St Dev	1.40	1.63	1.80	2.42	1.96
		Min	12.62	11.42	9.95	10.97	11.64
		Max	19.81	19.47	18.97	22.75	21.22
Good	Avg	10.42	10.13	11.03	11.17	11.43	
	St Dev	1.64	1.41	1.89	2.31	1.95	
	Min	7.27	7.68	7.20	4.95	8.28	
	Max	15.10	13.99	15.95	15.99	16.95	
Skipjack Whole	All	Avg	2.09	2.08	2.82	3.07	2.76
		St Dev	0.42	0.56	0.84	0.73	0.85
		Min	1.50	1.25	1.17	1.85	1.00
		Max	2.95	4.50	4.62	4.95	5.95
Albacore Fillet	All	Avg	8.62	8.44	9.45	8.92	9.27
		St Dev	1.81	1.49	1.48	2.04	2.03
		Min	5.24	5.72	5.99	5.47	5.79
		Max	12.99	11.99	12.99	14.99	14.99

Table 14. --Average weekly retail price (\$/pound): Import 'ahi tuna by product form and quality.

Product Form	Grade		2007	2008	2009	2010	2011
Poke	All	Avg	7.59	7.28	8.00	7.91	8.48
		St Dev	0.76	0.72	0.59	0.25	0.86
		Min	6.06	5.99	7.32	7.35	7.72
		Max	9.19	8.64	9.76	8.59	10.97
		Avg	12.40	11.20	10.82	13.08	14.63
		St Dev	2.40	1.54	2.65	3.30	4.20
		Min	6.49	7.99	7.99	6.99	3.50
		Max	15.99	12.99	18.66	20.49	23.99
Loin/Fillet	Premium	Avg	-	-	21.99	23.70	23.86
		St Dev	-	-	2.83	2.84	2.00
		Min	-	-	19.99	16.99	21.99
		Max	-	-	23.99	29.99	27.99
	High	Avg	14.46	12.99 <sup>a</sup>	13.74	15.30	15.56
		St Dev	1.76	-	3.20	1.95	2.03
		Min	10.49	-	8.99	9.99	11.47
		Max	16.99	-	15.99	17.99	19.99
	Good	Avg	10.25	10.70	10.13	9.52	10.64
		St Dev	1.73	1.35	1.69	1.96	2.27
		Min	6.49	7.99	7.99	6.99	3.50
		Max	12.99	12.47	13.99	14.99	15.95

<sup>a</sup>One observation

Table 15. --Average weekly retail price (\$/pound): Local bottomfish (whole).

Species		2007	2008	2009	2010	2011
Onaga	Avg	14.90	13.40	14.80	14.51	14.86
	St Dev	3.51	4.64	2.36	3.27	2.54
	Min	8.99	7.95	10.37	9.50	10.73
	Max	29.00	30.74	21.39	26.73	24.32
Opakapaka	Avg	11.10	9.74	9.65	9.82	11.25
	St Dev	3.79	1.82	0.94	2.79	3.54
	Min	5.95	6.99	7.93	7.71	7.95
	Max	28.00	16.00	11.78	22.99	24.30
Ehu	Avg	11.86	10.39	11.95	11.52	11.95
	St Dev	1.87	3.07	1.98	1.86	2.71
	Min	7.95	5.95	8.00	8.95	7.95
	Max	15.99	22.33	15.50	16.23	21.80
Gindai	Avg	9.52	8.25	9.67	10.11	9.73
	St Dev	1.25	2.34	1.21	1.24	1.22
	Min	7.50	4.95	7.50	8.50	7.95
	Max	12.23	16.50	12.00	12.50	10.73
Uku	Avg	6.15	6.37	6.15	6.35	6.59
	St Dev	0.68	0.57	0.83	0.38	0.75
	Min	4.50	5.50	3.95	5.50	5.50
	Max	7.50	8.73	8.95	7.50	10.23
Ta'ape	Avg	2.64	2.98	3.14	3.23	3.24
	St Dev	0.50	0.47	0.56	0.32	0.34
	Min	1.83	2.23	2.00	2.75	2.48
	Max	3.99	4.72	5.00	3.99	4.49

Table 16. --Average weekly retail price (\$/pound): Local bottomfish<sup>a</sup> (fillet).

Species		2010	2011
Onaga	Avg	24.03	20.43
	St Dev	1.98	7.48
	Min	19.99	8.95
	Max	28.99	26.99
Opakapaka	Avg	22.66	22.98
	St Dev	3.96	5.54
	Min	15.81	11.95
	Max	19.99	26.99

<sup>a</sup> These were the only species and years with consistent observations



Table 17.--Average weekly retail price (\$/pound): Import bottomfish (whole).

Species		2007	2008	2009	2010	2011
Onaga	Avg	9.24	9.44	10.42	9.85	10.85
	St Dev	1.15	2.84	1.06	1.60	1.64
	Min	7.45	6.95	8.32	5.95	8.50
	Max	15.50	25.50	12.50	12.95	15.50
Opakapaka	Avg	8.45	6.95	7.06	8.83	10.02
	St Dev	3.86	1.18	1.18	2.05	2.02
	Min	4.95	5.49	5.99	6.50	7.95
	Max	26.00	10.23	9.95	16.99	13.99
Ehu	Avg	8.33	8.21	8.97	9.00	8.45
	St Dev	1.81	1.44	2.23	1.17	0.71
	Min	3.95	5.95	5.95	6.95	7.95
	Max	12.95	9.95	12.50	11.95	8.95
Red Snapper	Avg	7.69	8.11	8.49	8.62	8.84
	St Dev	0.48	0.74	0.56	0.54	0.46
	Min	6.50	6.45	7.50	7.73	7.95
	Max	7.99	9.99	9.30	9.62	9.30
Tai Snapper	Avg	6.29	7.01	7.26	7.74	7.52
	St Dev	0.56	0.50	0.41	1.30	0.51
	Min	5.50	5.97	6.41	6.33	6.50
	Max	7.80	8.10	8.74	15.12	8.98

Table 18.--Average weekly retail price (\$/pound): Local reef fish, by species.

Species		2007	2008	2009	2010	2011
A'awa	Avg	3.15	3.14	3.96	3.63	3.98
	St Dev	0.70	0.59	1.01	0.43	0.60
	Min	1.98	1.95	2.95	2.45	2.95
	Max	4.95	3.95	6.95	4.45	5.99
Kala	Avg	2.54	2.88	3.01	3.17	2.99
	St Dev	0.39	0.23	0.34	0.57	0.55
	Min	1.74	2.00	1.98	1.97	1.50
	Max	2.95	3.25	3.50	5.99	3.92
Manini	Avg	4.43	4.54	4.92	4.97	4.96
	St Dev	0.74	0.57	0.78	0.78	0.71
	Min	2.66	2.50	2.95	2.95	3.45
	Max	5.99	5.40	5.98	6.99	6.47
Palani	Avg	2.84	2.81	2.92	2.82	2.77
	St Dev	0.51	0.31	0.36	0.42	0.42
	Min	1.95	1.97	1.95	1.74	1.95
	Max	3.99	3.73	3.50	3.99	3.50
Weke	Avg	5.14	6.26	6.34	6.33	7.13
	St Dev	1.16	1.46	1.19	1.41	1.49
	Min	2.95	4.48	4.98	2.95	4.09
	Max	8.95	10.45	10.95	10.27	10.99
Kumu	Avg	12.93	15.13	15.10	16.81	16.87
	St Dev	3.41	2.28	4.79	1.88	1.34
	Min	6.95	7.95	5.95	11.95	12.95
	Max	18.99	18.95	19.23	18.95	19.49
Mu	Avg	6.36	6.37	6.85	6.85	7.38
	St Dev	0.61	0.76	0.85	0.60	0.96
	Min	5.15	4.47	4.40	5.50	5.95
	Max	6.95	7.73	7.95	8.50	8.95
Uhu	Avg	6.62	6.69	6.53	6.33	6.58
	St Dev	0.81	0.78	0.67	0.75	0.70
	Min	5.50	3.95	5.21	4.95	4.95
	Max	9.99	8.45	8.95	7.96	7.97
Menpachi	Avg	7.77	8.30	8.00	8.40	8.63
	St Dev	1.37	0.66	1.43	1.01	1.17
	Min	5.49	6.66	3.50	6.47	5.95
	Max	10.99	10.00	10.16	11.99	12.24
Toau	Avg	3.27	3.75	4.48	6.01	8.29
	St Dev	1.25	1.15	1.20	1.92	0.83
	Min	1.83	2.23	2.60	2.95	5.95
	Max	7.95	7.50	7.23	8.97	9.63

Table 18 (continued).--Average weekly retail price (\$/pound): Local reef fish, by species.

Species		2007	2008	2009	2010	2011
Akule	Avg	4.13	4.71	5.33	5.25	5.83
	St Dev	0.59	0.82	0.89	1.33	1.21
	Min	2.95	2.98	3.25	2.50	3.50
	Max	5.99	6.99	6.95	8.99	10.99
Opelu	Avg	3.99	4.15	4.66	4.50	5.04
	St Dev	0.74	0.59	0.83	0.81	0.82
	Min	1.98	2.85	2.99	1.50	4.13
	Max	7.12	5.99	6.81	6.99	7.99
Papio (whole/fillet)	Avg	5.45	5.66	5.88	5.97	6.03
	St Dev	0.53	0.73	0.97	0.69	0.85
	Min	4.95	3.62	3.95	4.62	4.50
	Max	5.95	6.73	7.71	7.30	7.95

Table 19.--Average weekly retail price (\$/pound): Local reef fish, by family.

Species		2007	2008	2009	2010	2011
Kumu Goatfish	Avg	12.93	15.13	15.10	16.81	16.87
	St Dev	3.41	2.28	4.79	1.88	1.34
	Min	6.95	7.95	5.95	11.95	12.95
	Max	18.99	18.95	19.23	18.95	19.49
Non-Kumu Goatfish	Avg	5.14	6.26	6.34	6.33	7.13
	St Dev	1.16	1.46	1.19	1.41	1.49
	Min	2.95	4.48	4.98	2.95	4.09
	Max	8.95	10.45	10.95	10.27	10.99
Parrotfish	Avg	6.62	6.69	6.53	6.36	6.58
	St Dev	0.81	0.78	0.67	0.77	0.70
	Min	5.50	3.95	5.21	4.95	4.95
	Max	9.99	8.45	8.95	7.96	7.97
Snapper	Avg	3.27	3.75	4.48	6.05	8.29
	St Dev	1.25	1.15	1.20	1.91	0.83
	Min	1.83	2.23	2.60	2.95	5.95
	Max	7.95	7.50	7.23	8.97	9.63
Squirrelfish	Avg	7.77	8.30	8.00	8.36	8.63
	St Dev	1.37	0.66	1.43	1.01	1.17
	Min	5.49	6.66	3.50	6.47	5.95
	Max	10.99	10.00	10.16	11.99	12.24
Surgeonfish	Avg	3.12	3.18	3.45	3.53	3.26
	St Dev	0.59	0.47	0.45	0.51	0.44
	Min	1.75	2.25	2.47	2.28	2.32
	Max	4.48	4.99	4.45	5.45	4.56
Wrasse	Avg	4.99	5.72	5.07	3.97	5.03
	St Dev	2.54	3.54	3.09	1.20	2.03
	Min	2.25	1.95	2.95	2.45	2.95
	Max	11.95	15.98	13.81	8.97	12.50
Bigeye Scad	Avg	4.13	4.71	5.33	5.25	5.83
	St Dev	0.59	0.82	0.89	1.33	1.21
	Min	2.95	2.98	3.25	2.50	3.50
	Max	5.99	6.99	6.95	8.99	10.99
Mackerel Scad	Avg	3.99	4.15	4.66	4.50	5.04
	St Dev	0.74	0.59	0.83	0.80	0.82
	Min	1.98	2.85	2.99	1.50	4.13
	Max	7.12	5.99	6.81	6.99	7.99
Jack (whole/fillet)	Avg	5.54	5.62	5.89	5.90	5.81
	St Dev	0.67	0.80	0.96	0.69	0.66
	Min	4.95	3.62	3.95	4.45	3.98
	Max	6.65	6.73	7.71	7.30	6.95

Table 20.--Average weekly retail price (\$/pound): Local non-tuna pelagic fish<sup>a</sup>.

Species		2008	2009 <sup>b</sup>	2010	2011
Mahimahi	Avg	-	9.91	11.45	12.17
	St Dev	-	1.71	2.03	2.50
	Min	-	7.63	7.73	8.06
	Max	-	13.47	14.97	19.99
Ono	Avg	-	8.67	8.83	9.03
	St Dev	-	1.22	1.22	1.00
	Min	-	6.95	5.95	6.45
	Max	-	10.99	11.64	10.95
Striped Marlin (Nairagi)	Avg	5.55	7.16	8.57	7.43
	St Dev	1.39	1.52	2.14	1.97
	Min	3.32	4.98	5.88	3.98
	Max	7.95	11.99	14.99	12.99
Blue Marlin (Kajiki)	Avg	6.82	8.03	8.58	8.82
	St Dev	1.08	1.84	1.62	1.58
	Min	4.66	4.66	4.98	6.21
	Max	8.99	10.99	12.49	13.49
Broadbill Swordfish (Shutome)	Avg	-	5.48	7.83	8.27
	St Dev	-	0.49	1.03	1.73
	Min	-	4.99	5.95	5.95
	Max	-	5.97	10.99	13.99
Opah	Avg	-	9.07	10.79	11.95
	St Dev	-	1.70	2.03	2.20
	Min	-	6.62	6.62	7.99
	Max	-	12.99	14.99	16.99
Monchong	Avg	-	8.39	9.28	9.70
	St Dev	-	1.03	1.66	1.40
	Min	-	5.95	6.88	6.95
	Max	-	9.95	13.47	12.99

<sup>a</sup> All non-tuna pelagics were marketed in loin, fillet, or steak form.

<sup>b</sup> In 2009, data for mahimahi, ono, shutome, opah, and monchong were only collected between June and December. However, nairagi and kajiki were collected all 12 months in 2009.

Table 21.--Average monthly retail prices (\$/pound): Local tuna by product form and quality.

Year	Month	'ahi						Skipjack Whole	Albacore Fillet
		Whole	Poke	Loin/Fillet					
				All Grades	Premium	High	Good		
2007	Jan	2.63	7.87	15.06	23.57	16.24	9.43	2.52	7.31
	Feb	1.93	7.90	16.00	24.37	16.00	10.53	2.05	7.79
	Mar	2.08	7.93	15.65	22.51	16.55	11.20	1.94	7.31
	Apr	2.26	7.53	18.38	26.23	17.26	12.62	2.21	9.99
	May	1.87	8.18	14.31	21.24	15.93	9.44	2.07	7.09
	Jun	1.92	8.00	15.35	22.64	15.79	9.81	2.10	8.64
	Jul	1.83	8.51	17.01	24.15	15.53	11.06	1.86	9.03
	Aug	1.96	8.05	18.76	24.58	16.37	11.95	1.96	10.65
	Sep	2.18	7.70	16.89	22.53	15.83	10.11	2.32	9.53
	Oct	2.33	7.93	14.81	23.51	15.22	9.62	-	7.55
	Nov	1.86	7.95	14.15	22.28	15.29	8.38	1.50	7.70
	Dec	2.28	8.58	18.61	24.97	15.68	11.00	2.23	10.32
2008	Jan	1.45	8.30	14.72	23.20	15.21	9.44	1.50	7.36
	Feb	1.72	8.55	13.52	22.05	14.30	9.02	1.73	6.79
	Mar	1.79	8.81	15.64	23.19	15.65	10.26	1.90	9.34
	Apr	2.04	8.90	17.33	23.03	15.52	10.97	2.01	7.79
	May	2.50	8.81	17.57	22.81	16.61	10.53	2.00	8.65
	Jun	2.42	9.23	14.72	24.58	14.81	8.57	2.25	7.99
	Jul	2.19	9.31	17.14	25.58	16.36	9.24	2.33	8.94
	Aug	2.26	9.22	18.02	26.25	18.84	10.53	1.94	9.15
	Sep	2.16	8.93	16.31	22.83	15.46	9.58	2.35	8.48
	Oct	1.96	11.18	18.03	25.65	16.10	11.76	1.85	-
	Nov	1.45	9.67	14.62	21.51	15.09	9.46	1.25	11.99
	Dec	2.22	9.90	19.13	25.03	16.29	11.75	2.72	9.31
2009	Jan	2.76	10.01	16.42	23.34	16.40	10.04	3.41	8.97
	Feb	3.81	10.07	16.33	22.96	16.31	11.15	4.50	8.73
	Mar	3.69	9.85	20.54	25.01	17.28	13.38	3.63	10.99
	Apr	2.92	10.14	16.52	25.81	15.15	11.60	3.21	8.74
	May	2.77	9.39	18.10	25.94	16.62	10.94	2.89	11.99
	Jun	2.86	10.10	18.69	24.76	15.42	12.35	2.92	9.99
	Jul	2.73	8.86	15.90	24.18	15.61	10.33	2.16	10.49
	Aug	2.62	9.84	17.37	24.73	15.34	11.33	2.82	10.16
	Sep	2.45	9.87	16.37	25.68	14.19	9.83	2.73	8.49
	Oct	2.20	8.42	13.86	24.38	14.15	9.00	2.31	-
	Nov	2.52	10.90	14.77	21.67	13.95	9.38	3.10	-
	Dec	2.30	10.58	18.38	22.48	16.63	12.52	1.98	9.37
2010	Jan	3.33	11.07	20.27	24.27	17.02	13.31	3.06	11.58
	Feb	4.22	10.75	17.08	26.18	17.47	10.26	2.30	6.46
	Mar	2.84	10.91	20.46	26.81	17.08	8.80	2.86	8.46
	Apr	2.84	12.08	18.96	29.19	16.39	11.01	3.71	11.49
	May	2.82	11.75	15.91	23.96	16.85	9.64	2.95	8.35
	Jun	2.96	11.87	17.48	26.10	16.77	10.06	2.64	7.47
	Jul	3.21	12.05	19.15	24.34	17.66	13.81	3.38	8.75
	Aug	2.87	13.07	21.69	26.38	19.50	12.77	3.12	7.94
	Sep	2.86	12.73	23.22	26.94	18.00	12.61	2.67	11.12
	Oct	2.09	12.64	20.41	24.91	16.21	10.93	1.85	8.25
	Nov	2.62	12.09	19.43	24.92	14.96	10.62	3.54	8.62
	Dec	3.25	14.39	22.71	27.66	18.66	11.49	4.03	10.06
2011	Jan	2.18	13.47	20.23	26.15	15.46	10.75	2.38	8.42
	Feb	1.87	11.91	19.04	23.75	13.50	10.29	1.81	6.98
	Mar	1.82	11.97	18.50	23.34	14.34	10.09	2.02	8.87
	Apr	2.72	11.08	19.92	26.64	14.03	10.04	2.90	8.31
	May	2.46	11.74	21.15	27.95	13.90	11.01	2.82	8.97
	Jun	3.24	11.48	20.97	25.52	15.71	9.68	3.66	9.22
	Jul	2.65	13.31	21.41	26.54	14.97	11.58	2.64	11.00
	Aug	2.69	12.52	21.82	26.62	14.56	10.14	2.70	10.51
	Sep	2.69	11.71	21.87	26.70	16.61	11.61	2.36	8.64
	Oct	2.61	11.23	24.87	28.46	18.02	14.30	2.91	9.89
	Nov	3.12	12.91	21.82	27.06	17.01	13.15	3.07	10.86
	Dec	2.74	13.26	23.94	29.27	16.61	14.03	3.67	8.85

Table 22.--Average monthly retail prices (\$/pound): Imported 'ahi tuna by form and quality.

Year	Month	Poke	Loin/Fillet			
			All Grades	Premium	High	Good
2007	Jan	-	10.62	-	-	10.62
	Feb	5.64	12.82	-	13.99	10.49
	Mar	5.86	11.84	-	12.37	10.89
	Apr	-	12.29	-	15.99	10.78
	May	5.99	13.14	-	15.24	9.82
	Jun	6.49	12.60	-	13.16	10.49
	Jul	6.58	12.98	-	13.99	10.95
	Aug	-	15.99	-	15.99	-
	Sep	-	-	-	-	-
	Oct	-	-	-	-	-
	Nov	6.49	6.50	-	-	6.50
	Dec	6.57	-	-	-	-
2008	Jan	6.34	12.95	-	-	-
	Feb	6.64	-	-	-	-
	Mar	5.99	-	-	-	-
	Apr	5.79	-	-	-	-
	May	5.99	-	-	-	-
	Jun	-	-	-	-	-
	Jul	-	-	-	-	-
	Aug	-	12.47	-	-	12.47
	Sep	6.74	-	-	-	-
	Oct	7.04	12.99	-	12.99	-
	Nov	7.63	10.11	-	-	10.11
	Dec	7.82	10.99	-	-	10.99
2009	Jan	7.81	11.48	-	-	11.48
	Feb	7.99	-	-	-	-
	Mar	7.89	12.38	-	14.99	11.47
	Apr	7.99	10.98	-	-	10.98
	May	7.99	-	-	-	-
	Jun	7.82	11.66	19.99	15.99	9.32
	Jul	7.99	10.24	-	-	10.24
	Aug	7.82	8.49	-	8.99	8.32
	Sep	7.87	10.32	-	-	10.32
	Oct	7.49	8.99	-	-	8.99
	Nov	7.82	13.24	23.99	-	9.49
	Dec	7.63	7.99	-	-	7.99
2010	Jan	7.68	7.49	-	-	7.49
	Feb	7.66	12.95	-	12.95	-
	Mar	7.69	11.32	-	17.99	7.99
	Apr	7.89	15.89	24.66	16.62	10.37
	May	7.79	15.16	29.99	15.99	9.99
	Jun	7.67	13.77	20.99	12.99	8.29
	Jul	7.57	14.09	24.32	14.99	8.12
	Aug	7.99	12.99	-	16.99	8.99
	Sep	7.94	11.67	-	15.08	8.99
	Oct	8.08	11.37	-	16.99	10.49
	Nov	8.04	13.85	22.99	15.49	10.66
	Dec	8.06	13.46	24.99	14.13	10.82
2011	Jan	8.07	12.76	24.99	13.82	7.66
	Feb	8.03	18.69	21.99	17.99	12.49
	Mar	8.02	15.41	22.66	15.99	9.66
	Apr	8.08	15.32	21.99	16.43	9.99
	May	8.06	12.99	-	14.99	10.99
	Jun	8.10	11.32	-	12.99	10.49
	Jul	8.00	8.99	-	-	8.99
	Aug	8.34	12.89	-	15.99	10.82
	Sep	8.12	12.82	-	13.99	10.74
	Oct	8.42	15.49	22.99	14.24	10.49
	Nov	9.64	19.99	24.99	16.16	-
	Dec	10.73	15.27	27.99	16.91	13.78

Table 23.--Average monthly retail prices (\$/pound): Local bottomfish (whole).

Year	Month	Onaga	Opakapaka	Ehu	Gindai	Uku	Ta'ape
2007	Jan	16.19	11.48	13.28	9.50	6.95	2.27
	Feb	14.46	11.06	12.82	10.95	6.50	2.50
	Mar	14.43	9.83	11.77	11.11	6.28	3.25
	Apr	14.53	9.21	11.39	-	6.23	2.74
	May	14.23	9.47	12.40	-	6.06	2.53
	Jun	-	-	-	-	5.50	2.43
	Jul	-	-	-	-	5.50	2.87
	Aug	-	10.99	-	-	6.13	2.91
	Sep	-	-	-	-	5.36	2.73
	Oct	12.02	10.04	10.77	8.61	6.68	2.64
	Nov	13.07	9.82	9.62	8.95	5.95	1.93
	Dec	16.90	14.48	11.70	9.65	5.95	2.48
2008	Jan	13.15	9.79	10.44	8.54	5.95	2.61
	Feb	14.12	8.68	11.33	8.22	5.95	2.65
	Mar	10.74	9.25	9.09	7.59	6.13	2.80
	Apr	19.99	12.48	11.38	-	5.74	2.98
	May	7.95	7.97	6.95	4.95	6.25	2.97
	Jun	7.50	10.99	8.96	4.95	6.59	3.10
	Jul	-	9.83	8.65	6.97	6.11	3.06
	Aug	-	-	9.50	7.73	6.36	3.30
	Sep	-	-	-	-	6.59	3.43
	Oct	7.95	8.95	9.95	-	6.66	3.04
	Nov	12.74	9.11	9.63	8.79	6.61	2.83
	Dec	16.86	9.77	12.72	9.55	6.67	2.88
2009	Jan	14.13	9.46	11.49	9.46	6.48	2.78
	Feb	13.44	10.20	12.39	-	6.50	4.47
	Mar	12.85	9.29	11.20	9.17	-	3.47
	Apr	16.43	9.21	12.54	10.06	-	3.24
	May	14.16	9.54	10.41	10.50	5.95	3.48
	Jun	12.97	8.95	9.03	8.27	5.46	3.33
	Jul	14.81	10.50	14.50	-	6.25	3.91
	Aug	-	-	-	10.50	5.86	3.12
	Sep	15.93	9.61	11.74	8.65	6.14	3.16
	Oct	12.94	9.56	11.15	9.50	8.95	2.77
	Nov	14.74	9.82	12.79	-	6.50	2.97
	Dec	17.29	10.29	11.73	10.80	5.77	2.82
2010	Jan	13.86	9.23	10.74	9.50	5.99	3.31
	Feb	16.97	10.84	11.84	10.50	6.23	3.47
	Mar	15.16	11.87	12.41	11.10	6.98	3.30
	Apr	17.48	8.95	15.65	-	6.95	2.87
	May	-	-	-	-	6.50	3.20
	Jun	-	-	-	-	6.61	3.15
	Jul	-	-	-	-	6.23	3.07
	Aug	-	-	-	-	6.50	3.28
	Sep	13.13	9.60	10.90	9.92	6.14	3.17
	Oct	11.49	8.25	9.75	9.55	5.98	3.08
	Nov	13.47	9.07	11.22	9.34	6.50	3.48
	Dec	15.20	8.69	11.67	9.91	6.34	3.43
2011	Jan	15.79	11.67	11.30	10.50	6.23	3.37
	Feb	13.68	9.32	10.92	-	6.47	3.06
	Mar	-	-	-	-	6.25	3.45
	Apr	-	-	-	-	6.14	3.31
	May	-	-	-	-	6.50	3.14
	Jun	-	-	-	-	6.59	3.21
	Jul	-	-	-	-	6.72	3.28
	Aug	-	-	-	-	6.95	3.37
	Sep	13.47	9.59	11.88	9.13	6.56	3.12
	Oct	15.09	12.09	11.89	-	6.50	2.95
	Nov	14.74	10.80	12.27	-	6.50	3.23
	Dec	17.79	14.63	15.30	-	7.89	3.38

Dashed box indicates seasonal closure for MHI bottomfish (any local fish are from NWHI).



Table 24.--Average monthly retail prices (\$/pound): Import bottomfish (whole).

Year	Month	Onaga	Opakapaka	Ehu	Red Snapper	Tai Snapper
2007	Jan	9.09	8.60	9.95	7.97	5.90
	Feb	9.36	7.99	-	7.95	6.18
	Mar	8.99	6.97	8.50	7.87	5.92
	Apr	9.60	7.75	8.47	7.63	5.82
	May	8.46	7.53	8.17	7.96	6.01
	Jun	9.38	7.83	7.70	-	5.79
	Jul	9.00	8.95	7.95	6.98	6.48
	Aug	9.61	-	8.50	-	6.78
	Sep	9.24	-	-	7.99	6.49
	Oct	8.94	7.73	10.23	6.80	6.56
	Nov	8.84	-	5.95	-	6.66
	Dec	9.65	13.66	8.45	7.95	6.97
2008	Jan	9.62	6.98	7.59	8.60	6.55
	Feb	9.38	5.99	9.45	8.43	6.86
	Mar	8.55	6.24	7.63	7.64	6.78
	Apr	9.24	7.08	-	7.47	7.29
	May	8.71	6.50	5.95	8.29	6.35
	Jun	8.28	7.24	-	9.99	6.97
	Jul	8.47	6.92	-	8.70	7.28
	Aug	8.91	6.81	-	8.80	6.95
	Sep	9.65	7.44	9.73	8.62	7.08
	Oct	10.36	9.08	8.86	7.66	7.29
	Nov	8.48	8.63	-	7.80	7.28
	Dec	10.32	6.87	-	8.39	7.18
2009	Jan	10.99	5.99	7.95	7.95	7.31
	Feb	9.98	6.26	-	8.71	7.20
	Mar	9.80	6.19	-	8.87	7.63
	Apr	10.23	-	7.95	-	7.17
	May	9.95	-	5.95	9.30	6.79
	Jun	-	8.24	-	-	7.20
	Jul	9.60	6.99	-	7.80	7.07
	Aug	12.50	-	-	8.45	6.94
	Sep	11.50	6.95	9.50	-	7.47
	Oct	-	8.80	10.59	8.45	7.43
	Nov	10.50	7.64	-	-	7.45
	Dec	-	-	-	-	7.30
2010	Jan	-	-	-	8.95	7.22
	Feb	12.95	6.75	-	8.48	7.49
	Mar	-	9.23	-	8.52	7.30
	Apr	10.48	9.32	8.95	7.73	6.77
	May	10.13	7.95	8.62	-	7.18
	Jun	9.93	7.77	8.48	-	7.36
	Jul	10.54	8.95	8.95	-	7.58
	Aug	7.73	8.95	-	-	7.31
	Sep	10.13	8.95	-	-	8.32
	Oct	-	-	-	-	7.16
	Nov	10.95	9.45	11.95	-	8.46
	Dec	8.28	9.74	-	-	9.12
2011	Jan	9.45	-	-	9.00	7.31
	Feb	-	-	-	9.13	7.24
	Mar	9.74	-	-	9.28	7.76
	Apr	10.53	8.95	8.45	-	7.72
	May	9.23	-	-	-	7.34
	Jun	9.95	-	-	8.95	8.54
	Jul	12.50	7.99	-	8.95	6.92
	Aug	10.99	8.95	-	8.70	7.46
	Sep	10.50	13.99	-	-	7.70
	Oct	-	-	-	-	7.80
	Nov	11.95	9.95	-	-	7.51
	Dec	-	10.45	-	-	7.93

Dashed box indicates seasonal closure for MHI bottomfish

Table 25.--Average monthly retail prices (\$/pound): Local reef fish, by species.

Year	Month	A'awa	Kala	Manini	Palani	Weke	Kumu	Mu	Uhu	Menpachi	Toau
2007	Jan	4.62	2.55	4.95	2.95	3.89	10.95	6.50	5.61	-	-
	Feb	-	2.95	4.55	-	4.66	-	-	6.81	-	-
	Mar	3.50	-	4.22	3.74	4.68	13.99	-	7.16	-	-
	Apr	2.24	-	4.87	2.97	5.38	10.46	-	7.10	-	-
	May	2.81	2.05	4.62	3.20	5.18	-	5.15	6.42	7.48	6.12
	Jun	2.90	2.50	3.80	2.87	4.78	12.95	6.32	6.15	6.16	5.95
	Jul	3.73	2.95	3.75	2.85	4.88	13.97	6.45	6.38	7.74	-
	Aug	3.13	2.27	4.15	2.48	5.24	14.95	-	6.66	7.77	6.32
	Sep	2.60	2.72	3.97	2.82	7.23	12.50	6.45	7.00	7.92	6.06
	Oct	2.50	2.49	4.98	2.52	5.52	14.95	6.28	6.33	7.05	6.95
	Nov	-	-	4.97	2.56	6.04	-	6.95	7.27	9.91	5.99
	Dec	3.62	-	5.99	3.47	7.95	14.95	6.95	6.96	7.95	7.95
2008	Jan	-	2.95	4.13	2.78	5.33	11.45	5.95	7.28	7.95	6.95
	Feb	3.45	2.72	4.99	-	6.54	-	-	5.62	-	6.95
	Mar	-	-	4.28	2.95	6.21	15.95	6.95	6.21	8.17	7.50
	Apr	3.50	2.80	4.62	3.02	5.33	10.50	6.95	6.75	8.29	3.95
	May	2.80	2.55	4.30	3.02	5.63	15.95	5.46	5.94	7.16	5.45
	Jun	3.95	2.95	4.63	2.48	5.67	16.23	-	6.43	8.92	6.80
	Jul	2.84	2.71	4.70	2.63	6.91	14.86	6.28	6.51	7.75	7.14
	Aug	2.95	2.95	4.95	2.50	6.18	15.95	5.95	7.50	8.43	6.95
	Sep	3.70	2.91	3.11	2.66	5.84	16.93	6.95	6.66	8.44	7.80
	Oct	3.07	2.85	4.84	2.75	6.44	15.75	6.95	6.57	8.33	7.45
	Nov	2.38	2.78	4.02	2.86	6.95	15.13	6.47	7.06	8.07	-
	Dec	3.62	3.07	4.45	3.07	6.55	15.13	7.32	7.14	8.61	7.95
2009	Jan	4.95	2.95	5.98	3.30	-	19.04	6.21	7.38	8.23	-
	Feb	2.95	3.25	5.18	2.95	5.95	16.98	6.95	6.91	9.23	-
	Mar	3.34	3.30	4.66	3.37	5.90	18.46	6.84	6.89	7.73	5.95
	Apr	3.92	3.10	4.95	2.61	5.66	15.56	7.13	6.71	7.97	6.40
	May	3.95	2.72	5.95	2.96	6.20	17.97	7.45	5.77	8.80	7.54
	Jun	3.47	2.96	4.81	2.83	5.90	16.23	6.09	6.46	6.89	7.45
	Jul	3.45	2.96	5.06	2.81	7.13	16.45	6.87	6.34	8.77	7.80
	Aug	3.50	3.20	5.22	3.23	6.05	16.95	6.80	6.96	5.80	7.95
	Sep	3.95	3.04	4.58	2.90	5.84	18.34	6.98	6.54	8.68	7.46
	Oct	4.55	2.70	5.07	2.90	8.54	10.60	6.89	6.26	6.81	7.62
	Nov	5.97	2.90	5.62	2.91	6.50	8.12	6.34	6.06	7.82	6.95
	Dec	2.95	3.20	4.64	3.12	6.07	12.66	7.46	6.09	8.78	7.38
2010	Jan	-	2.68	4.77	3.02	6.14	15.97	6.50	5.50	9.11	7.45
	Feb	3.50	3.20	5.06	3.00	6.01	16.86	7.45	6.35	8.14	7.95
	Mar	3.50	3.12	4.96	3.14	5.41	16.45	6.84	5.83	8.80	7.95
	Apr	-	3.35	5.96	3.12	6.00	17.80	7.36	7.12	9.57	6.95
	May	3.95	3.10	5.05	2.75	5.37	17.59	6.61	6.75	8.56	8.28
	Jun	3.45	3.14	5.02	2.88	4.96	17.27	6.88	6.51	8.32	7.15
	Jul	3.95	3.03	4.40	2.83	7.28	16.35	6.50	6.56	8.09	7.95
	Aug	3.84	3.16	4.99	2.19	8.19	15.36	7.31	6.61	8.80	6.76
	Sep	3.73	2.63	4.64	2.61	6.20	16.79	6.61	6.04	8.01	6.83
	Oct	3.63	3.89	4.74	2.66	6.76	15.75	6.74	6.12	7.59	7.78
	Nov	3.76	3.29	4.68	2.84	7.12	18.71	6.30	6.39	8.12	7.75
	Dec	3.39	3.23	5.75	2.87	7.65	15.56	7.49	6.44	8.29	8.14
2011	Jan	4.12	3.46	6.07	3.31	7.63	17.34	6.95	6.64	8.93	8.08
	Feb	4.03	3.36	4.75	3.17	6.42	16.68	7.74	6.46	8.94	8.63
	Mar	3.86	3.34	5.21	3.15	6.86	16.18	6.65	6.71	9.55	-
	Apr	4.08	3.74	4.24	2.92	6.61	17.27	7.39	6.25	8.36	8.70
	May	4.32	2.98	5.56	2.83	8.12	16.71	7.47	6.12	8.46	7.78
	Jun	3.73	2.73	4.45	2.32	6.90	17.95	8.13	6.61	8.44	8.06
	Jul	3.95	2.53	5.26	2.50	6.46	17.28	7.56	6.76	8.40	8.17
	Aug	4.34	2.82	4.35	2.34	7.06	16.42	7.73	6.75	8.90	9.03
	Sep	3.95	2.93	5.00	2.62	7.48	16.16	7.10	6.61	8.27	7.74
	Oct	3.83	2.66	4.80	2.72	8.32	16.62	7.32	6.66	9.41	8.58
	Nov	4.05	3.02	4.90	2.57	7.96	17.12	7.37	6.68	9.10	7.95
	Dec	3.45	3.27	4.61	2.96	7.44	16.81	6.50	7.01	8.51	8.70

Table 26.--Average monthly retail prices (\$/pound): Local reef fish, by common family.

Year	Month	Kumu Goatfish	Non-Kumu Goatfish	Parrot -fish	Snapper	Squirrel -fish	Surgeon -fish	Bigeye Emperor	Wrasse	Bigeye Scad	Mackerel Scad	Jacks
2007	Jan	10.95	3.89	5.61	-	-	2.76	6.50	4.62	-	3.95	-
	Feb	-	4.66	6.81	-	-	3.89	-	-	4.50	3.99	-
	Mar	13.99	4.68	7.16	-	-	3.93	-	3.50	3.93	3.95	5.95
	Apr	10.46	5.38	7.10	-	-	3.48	-	2.24	3.79	-	-
	May	-	5.18	6.42	6.12	7.48	3.30	5.15	2.81	4.04	4.07	-
	Jun	12.95	4.78	6.15	5.95	6.16	3.24	6.32	2.90	3.88	3.74	-
	Jul	13.97	4.88	6.38	-	7.74	3.15	6.45	3.73	3.95	4.14	-
	Aug	14.95	5.24	6.66	6.32	7.77	2.95	-	3.13	3.61	3.82	-
	Sep	12.50	7.23	7.00	6.06	7.92	2.83	6.45	2.60	4.32	4.74	4.95
	Oct	14.95	5.52	6.33	6.95	7.05	2.79	6.28	2.50	4.33	3.99	-
	Nov	-	6.04	7.27	5.99	9.91	3.04	6.95	-	4.14	4.25	5.45
	Dec	14.95	7.95	6.96	7.95	7.95	3.24	6.95	3.62	4.94	1.98	5.28
2008	Jan	11.45	5.33	7.28	6.95	7.95	3.19	5.95	-	4.04	3.97	5.95
	Feb	-	6.54	5.62	6.95	-	3.29	-	3.45	5.12	3.95	5.79
	Mar	15.95	6.21	6.21	7.50	8.17	3.36	6.95	-	4.55	3.73	5.45
	Apr	10.50	5.33	6.75	3.95	8.29	3.11	6.95	3.50	4.60	4.23	6.13
	May	15.95	5.63	5.94	5.45	7.16	3.25	5.46	2.80	4.63	3.37	5.45
	Jun	16.23	5.67	6.43	6.80	8.92	2.79	-	3.95	4.66	4.48	5.41
	Jul	14.86	6.91	6.51	7.14	7.75	3.37	6.28	2.84	5.25	3.65	5.73
	Aug	15.95	6.18	7.50	6.95	8.43	3.12	5.95	2.95	4.50	4.60	6.02
	Sep	16.93	5.84	6.66	7.80	8.44	2.77	6.95	3.70	4.86	4.39	5.42
	Oct	15.75	6.44	6.57	7.45	8.33	3.24	6.95	3.07	4.95	4.60	5.84
	Nov	15.13	6.95	7.06	-	8.07	3.23	6.47	2.38	3.60	4.14	-
	Dec	15.13	6.55	7.14	7.95	8.61	3.31	7.32	3.62	4.59	4.52	3.62
2009	Jan	19.04	-	7.38	-	8.23	3.96	6.21	4.95	4.36	4.03	4.95
	Feb	16.98	5.95	6.91	-	9.23	3.46	6.95	2.95	5.33	4.85	-
	Mar	18.46	5.90	6.89	5.95	7.73	3.73	6.84	3.34	5.01	5.53	-
	Apr	15.56	5.66	6.71	6.40	7.97	3.14	7.13	3.92	6.20	5.25	6.06
	May	17.97	6.20	5.77	7.54	8.80	3.10	7.45	3.95	4.63	4.73	5.47
	Jun	16.23	5.90	6.46	7.45	6.89	3.42	6.09	3.47	6.08	4.64	6.45
	Jul	16.45	7.13	6.34	7.80	8.77	3.62	6.87	3.45	5.64	5.45	6.04
	Aug	16.95	6.05	6.96	7.95	5.80	3.80	6.80	3.50	5.44	4.92	5.95
	Sep	18.34	5.84	6.54	7.46	6.68	3.29	6.98	3.95	5.46	4.81	-
	Oct	10.60	8.54	6.26	7.62	6.81	3.35	6.89	4.55	5.88	4.46	6.01
	Nov	8.12	6.50	6.06	6.95	7.82	3.51	6.34	5.97	4.48	4.09	5.52
	Dec	12.66	6.07	6.09	7.38	8.78	3.56	7.46	2.95	4.83	4.13	6.21
2010	Jan	15.97	6.14	5.50	7.45	9.11	3.34	6.50	-	6.02	4.28	5.45
	Feb	16.86	6.01	6.35	7.95	8.14	3.88	7.45	3.50	5.19	4.10	6.32
	Mar	16.45	5.41	5.83	7.95	8.80	3.69	6.84	3.50	4.98	4.75	6.20
	Apr	17.80	6.00	7.12	6.95	9.57	3.92	7.36	-	8.99	4.65	6.13
	May	17.59	5.37	6.75	8.28	8.56	3.62	6.61	3.95	5.46	4.39	5.59
	Jun	17.27	4.96	6.51	7.15	8.32	3.67	6.88	3.45	4.59	4.59	5.78
	Jul	16.35	7.28	6.56	7.95	8.09	3.40	6.50	3.95	4.60	4.34	5.79
	Aug	15.36	8.19	6.61	6.76	8.80	3.32	7.31	3.84	4.44	3.61	6.22
	Sep	16.79	6.20	6.04	6.83	8.01	3.18	6.61	3.73	4.98	5.31	5.41
	Oct	15.75	6.76	6.12	7.78	7.59	3.65	6.74	3.63	4.61	5.15	5.91
	Nov	18.71	7.12	6.39	7.75	8.12	3.42	6.30	3.76	6.03	4.52	5.92
	Dec	15.56	7.65	6.44	8.14	8.29	3.28	7.49	4.01	5.60	4.38	6.38
2011	Jan	17.34	7.34	6.41	8.08	8.22	3.87	6.95	5.68	6.62	4.48	5.87
	Feb	17.26	6.26	6.62	8.63	8.98	3.48	7.75	5.39	6.09	4.97	5.72
	Mar	16.47	6.77	6.71	-	9.45	3.76	6.65	6.13	6.21	5.15	5.33
	Apr	17.38	6.11	6.18	8.78	8.32	3.35	7.53	6.58	6.78	5.28	5.66
	May	16.07	7.22	6.30	7.89	8.30	2.93	7.84	4.98	5.67	4.52	5.60
	Jun	17.95	6.90	6.43	5.41	8.44	2.77	-	3.80	5.33	4.50	5.72
	Jul	17.28	7.26	6.76	5.74	8.39	3.15	7.56	3.89	5.06	5.96	6.28
	Aug	16.42	7.06	6.75	5.57	8.90	3.04	7.73	4.34	6.46	5.02	7.12
	Sep	16.16	7.48	6.61	7.74	8.27	3.28	7.10	5.38	6.28	5.63	7.01
	Oct	16.62	8.32	6.66	8.58	9.41	3.02	7.32	4.18	6.85	5.50	6.01
	Nov	17.12	7.96	6.68	7.95	9.10	3.13	7.37	4.05	5.10	4.46	6.32
	Dec	16.81	7.44	7.01	8.70	8.51	3.47	6.50	6.47	5.30	5.43	6.70

Table 27.--Average monthly retail prices (\$/pound): Local non-tuna pelagic fish.

Year	Month	Mahimahi	Ono	Nairagi	Kajiki	Shutome	Opah	Monchong
2007	Jan							
	Feb							
	Mar							
	Apr							
	May							
	Jun							
	Jul							
	Aug							
	Sep							
	Oct							
	Nov							
	Dec							
2008	Jan							
	Feb							
	Mar			-	7.95			
	Apr			5.47	6.30			
	May			3.98	6.49			
	Jun			4.32	5.97			
	Jul			6.17	7.44			
	Aug			7.95	7.69			
	Sep			6.95	5.99			
	Oct			6.95	7.48			
	Nov			5.48	5.26			
	Dec			6.47	7.24			
2009	Jan			5.65	7.61			
	Feb			6.98	9.49			
	Mar			7.99	10.66			
	Apr			6.87	7.22			
	May			5.66	6.23			
	Jun	8.72	7.37	6.45	6.07	6.98	11.99	6.81
	Jul	7.93	8.09	7.00	6.34	5.61	7.97	8.36
	Aug	6.59	8.22	6.95	4.99	-	9.95	-
	Sep	-	-	-	-	-	-	-
	Oct	8.70	8.87	7.24	8.07	8.99	7.35	7.47
	Nov	7.66	8.40	8.21	8.41	-	7.79	8.46
	Dec	8.98	7.95	8.71	9.24	9.99	10.19	8.20
2010	Jan	9.60	-	9.49	10.99	8.11	10.53	-
	Feb	11.38	9.63	7.95	10.49	8.30	11.31	8.95
	Mar	11.13	8.81	11.46	9.11	7.85	11.14	11.37
	Apr	9.79	8.45	11.49	8.77	7.54	11.73	8.55
	May	10.24	9.89	8.45	8.01	7.98	12.98	7.73
	Jun	9.88	9.05	9.57	7.81	7.77	11.22	8.95
	Jul	8.99	7.76	7.40	7.44	7.98	10.98	9.45
	Aug	10.67	9.63	7.95	8.08	6.45	11.15	-
	Sep	9.00	8.23	8.29	8.76	-	8.29	10.98
	Oct	8.18	8.28	6.95	7.72	-	7.90	8.24
	Nov	11.02	7.95	7.29	9.39	-	10.79	9.95
	Dec	10.81	9.20	-	8.48	6.50	11.21	10.70
2011	Jan	10.22	8.35	8.45	7.85	6.50	9.39	6.95
	Feb	8.66	8.95	6.68	7.35	7.47	13.99	11.13
	Mar	8.05	8.45	7.97	7.59	7.97	13.87	9.13
	Apr	9.10	9.01	7.55	8.20	7.96	13.74	8.96
	May	10.48	9.63	8.95	7.52	8.07	13.61	-
	Jun	11.74	8.14	9.57	7.02	9.41	11.76	12.99
	Jul	13.97	6.95	-	8.85	-	12.62	9.95
	Aug	13.03	-	-	9.70	8.47	11.09	8.99
	Sep	10.71	9.20	-	8.03	7.95	10.02	8.95
	Oct	13.38	9.65	9.20	8.52	8.99	11.98	9.28
	Nov	12.13	12.57	9.08	9.92	7.95	13.58	8.95
	Dec	10.33	12.09	8.16	10.57	10.30	14.12	9.62

Dashed box indicates months where data were not routinely collected.

Table 28.--Average weekly retail price spread<sup>a</sup> (\$/pound): Local tuna, by product form, quality.

Product Form	Grade		2007	2008	2009	2010	2011
<i>'ahi</i> Whole	All	Avg	-1.50	-1.95	-1.22	-1.57	-1.95
		St Dev	0.95	0.79	0.82	1.23	0.76
		Min	-3.93	-4.14	-3.27	-3.31	-4.05
		Max	0.43	-0.48	0.69	3.56	0.17
<i>'ahi</i> Poke	All	Avg	5.79	5.97	6.97	8.24	7.87
		St Dev	1.51	1.15	1.08	0.96	1.26
		Min	2.73	3.58	2.36	6.15	3.26
		Max	8.12	7.84	8.10	10.83	9.88
<i>'ahi</i> Loin/Fillet	All	Avg	12.68	12.29	12.94	15.47	16.78
		St Dev	2.37	2.16	2.18	2.71	1.83
		Min	9.31	8.98	9.24	7.92	12.95
		Max	23.17	18.41	19.61	19.83	21.26
	Premium	Avg	19.96	19.66	20.11	21.75	22.01
		St Dev	2.54	2.38	2.42	3.18	1.95
		Min	13.88	14.80	14.32	13.84	17.28
		Max	28.07	24.33	27.11	29.58	26.24
	High	Avg	12.34	11.66	11.58	12.88	10.87
		St Dev	1.46	1.38	1.47	2.28	1.58
		Min	8.98	7.92	7.07	7.23	8.03
		Max	15.83	14.99	14.81	18.41	15.82
Good	Avg	6.81	5.97	7.01	6.82	7.01	
	St Dev	1.34	1.43	1.51	2.21	1.77	
	Min	4.71	3.19	3.63	-1.27	4.08	
	Max	11.12	8.94	11.04	10.14	11.72	
<i>Skipjack</i> Whole	All	Avg	0.94	0.75	1.29	1.15	1.12
		St Dev	0.41	0.50	0.56	0.75	0.73
		Min	0.42	-0.11	0.28	-0.57	-0.11
		Max	2.01	2.58	2.56	2.79	4.08
<i>Albacore</i> Fillet	All	Avg	6.75	6.53	7.45	6.90	7.27
		St Dev	1.71	1.27	1.34	1.75	1.94
		Min	4.35	4.30	3.90	3.85	3.82
		Max	11.99	9.47	11.13	12.20	13.25

<sup>a</sup> Price Spread = Retail Price – Ex-Vessel Price

Table 29.--Average weekly retail price spread<sup>a</sup> (\$/pound): Local bottomfish (whole).

Species		2007	2008	2009	2010	2011
Onaga	Avg	7.09	9.51	7.57	7.05	6.73
	St Dev	4.08	6.38	2.31	2.57	1.97
	Min	-0.46	0.60	1.74	3.01	3.07
	Max	22.83	30.74	13.66	15.63	10.75
Opakapaka	Avg	5.45	5.11	3.93	3.81	5.27
	St Dev	3.36	2.85	0.78	2.76	3.37
	Min	0.83	0.35	2.26	1.15	2.19
	Max	19.28	10.99	5.38	17.13	16.62
Ehu	Avg	6.44	5.62	6.28	5.78	6.50
	St Dev	1.81	2.74	1.73	1.24	2.06
	Min	2.21	1.92	1.34	3.13	3.22
	Max	10.41	12.57	9.55	8.83	12.45
Gindai	Avg	5.08	4.62	5.33	5.38	5.43
	St Dev	1.05	1.86	1.64	1.23	1.06
	Min	3.24	2.41	2.37	3.33	4.19
	Max	7.10	10.94	10.50	8.40	6.59
Uku	Avg	2.73	2.72	2.34	2.26	2.00
	St Dev	0.87	0.85	0.93	0.48	0.80
	Min	0.95	0.76	0.35	1.17	0.17
	Max	4.08	4.91	5.02	3.29	5.04
Taape	Avg	1.24	1.38	1.57	1.63	1.52
	St Dev	0.47	0.50	0.58	0.38	0.36
	Min	0.37	0.79	0.26	1.14	0.76
	Max	2.18	3.25	3.16	3.05	2.84

<sup>a</sup> Price Spread = Retail Price – Ex-Vessel Price

Table 30.--Average weekly local price premium<sup>a</sup> (\$/pound): Bottomfish (whole).

Species		2007	2008	2009	2010	2011
Onaga	Avg	4.88	4.05	4.38	4.91	4.49
	St Dev	2.01	2.83	2.01	3.01	1.76
	Min	-0.49	0.00	0.42	2.00	2.97
	Max	7.49	10.49	7.00	11.30	7.52
Opakapaka	Avg	2.10	2.42	3.01	0.24	2.30
	St Dev	1.76	1.76	1.56	3.05	7.53
	Min	-1.55	-0.20	0.05	-6.01	-4.70
	Max	5.50	6.24	5.76	5.55	12.35
Ehu	Avg	3.47	2.03	1.61	3.35	<sup>b</sup>
	St Dev	1.55	1.75	3.00	4.74	-
	Min	1.29	-0.05	-3.05	0.00	-
	Max	5.78	4.37	5.05	6.70	-

<sup>a</sup> Local Price Premium = Retail Price (Local Origin) – Retail Price (Import Origin)

<sup>b</sup> There were no import ehu observed in the market at the same time as local ehu in 2011

Table 31.--Average weekly retail price spread<sup>a</sup> (\$/pound): Local reef fish, by common family.

Species		2007	2008	2009	2010	2011
Kumu Goatfish	Avg	5.71	6.22	5.51	8.12	8.35
	St Dev	3.22	2.95	4.98	1.98	1.61
	Min	1.29	-2.05	-4.10	1.71	5.67
	Max	13.51	10.11	14.49	11.17	11.32
Non-Kumu Goatfish	Avg	1.36	1.93	1.66	1.72	1.81
	St Dev	1.13	1.51	1.32	1.48	1.73
	Min	-0.71	-0.75	-0.90	-2.17	-1.37
	Max	4.41	6.22	6.00	6.32	7.21
Parrotfish	Avg	3.17	2.99	2.87	2.95	3.17
	St Dev	0.92	0.83	0.78	0.78	0.69
	Min	1.83	0.18	1.22	1.39	1.54
	Max	6.61	5.13	5.64	4.81	4.50
Snapper	Avg	-0.02	-0.02	0.91	2.41	4.62
	St Dev	1.48	1.14	1.35	2.03	1.12
	Min	-2.75	-1.84	-1.00	-1.13	1.87
	Max	3.99	3.97	3.59	6.66	6.82
Squirrelfish	Avg	3.73	3.70	3.79	4.22	4.33
	St Dev	1.35	1.51	1.42	1.03	1.13
	Min	1.47	-3.96	-0.60	2.37	1.76
	Max	7.06	5.73	6.37	8.06	8.02
Surgeonfish	Avg	1.24	1.27	1.52	1.70	1.47
	St Dev	0.58	0.46	0.47	0.53	0.43
	Min	-0.07	0.12	0.59	0.23	0.52
	Max	2.57	2.95	2.61	3.43	2.55
Emperor	Avg	3.48	2.97	3.59	3.69	4.36
	St Dev	1.14	1.07	1.04	0.70	1.07
	Min	2.24	0.94	1.40	2.26	2.44
	Max	6.50	5.72	7.95	5.95	6.14
Wrasse	Avg	2.57	1.90	1.65	-0.65	0.84
	St Dev	2.39	2.98	2.81	1.98	2.44
	Min	-0.84	-3.37	-3.03	-4.54	-3.27
	Max	7.27	12.11	8.47	4.76	10.40
Bigeye Scad	Avg	1.59	1.49	2.08	2.24	2.44
	St Dev	0.66	2.06	0.85	1.26	1.09
	Min	0.25	-0.98	-0.04	-1.38	0.43
	Max	3.64	4.59	3.92	5.57	7.25
Mackerel Scad	Avg	1.63	1.44	1.96	1.87	2.20
	St Dev	0.75	0.59	0.81	0.82	1.18
	Min	-0.23	0.11	0.08	-1.21	-2.73
	Max	4.82	3.32	4.10	4.38	5.54
Jacks	Avg	4.61	4.49	4.15	4.09	3.95
	St Dev	1.43	1.78	2.02	1.50	1.64
	Min	1.54	0.45	0.95	-0.37	0.95
	Max	5.95	6.73	7.71	6.95	6.95

<sup>a</sup> Price Spread = Retail Price – Ex-Vessel Price

Table 32.--Average weekly retail price spread<sup>a</sup> (\$/pound): Local non-tuna pelagic fish.

Species		2008	2009 <sup>b</sup>	2010	2011
Mahimahi	Avg	-	7.76	8.89	8.83
	St Dev	-	1.44	1.64	2.11
	Min	-	5.88	5.78	4.60
	Max	-	10.61	12.20	15.41
Ono	Avg	-	5.68	5.51	5.58
	St Dev	-	1.31	1.50	1.05
	Min	-	3.66	2.07	3.10
	Max	-	7.54	9.24	7.68
Striped Marlin (Nairagi)	Avg	4.26	5.32	6.40	5.87
	St Dev	1.10	1.10	2.10	1.75
	Min	1.96	3.84	4.05	3.06
	Max	5.99	9.13	12.38	10.19
Blue Marlin (Kajiki)	Avg	5.43	6.51	6.81	7.00
	St Dev	0.87	1.50	1.35	1.26
	Min	3.80	3.56	3.49	4.72
	Max	7.56	9.25	9.97	10.85
Broadbill Swordfish (Shutome)	Avg	-	3.51	4.39	4.25
	St Dev	-	0.30	1.43	1.57
	Min	-	3.13	1.22	1.27
	Max	-	3.87	7.55	9.05
Opah	Avg	-	7.79	9.21	9.83
	St Dev	-	1.31	1.69	1.79
	Min	-	5.84	4.77	6.08
	Max	-	10.92	12.64	14.22
Monchong	Avg	-	6.03	6.86	6.32
	St Dev	-	1.36	1.44	1.49
	Min	-	2.43	4.48	2.82
	Max	-	7.76	10.72	8.74

<sup>a</sup> Price Spread = Retail Price – Ex-Vessel Price

<sup>b</sup> In 2009, data for mahimahi, ono, shutome, opah, and monchong were only collected between June and December. However, nairagi and kajiki were collected all 12 months in 2009