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# **The market for Pacific Island fish jerky in Honolulu, Seattle and Southern California**

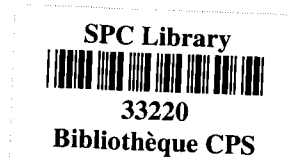
A report prepared for the South Pacific Commission

by

Robert Gillett

Gillett, Preston and Associates Inc.  
Marine Resource Assessment, Development  
and Management

July 1996



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## **Summary**

Visits were made to the Honolulu, Seattle, and Southern California areas. Interviews were held with individuals knowledgeable in the seafood business, distributors of seafood products were identified, and their opinions on Pacific Island tuna jerky were solicited. Attempts were made to locate products similar to tuna jerky, and their manufacturers. Samples of tuna jerky were shown to distributors, processors, retailers, and consumers to obtain their views. Information on importing a seafood product into the United States was collected.

The marketing of the existing tuna jerky from the Pacific Islands in the United States market appears to be a situation of head-on competition with established producers who are both in their own country and have lower production costs. Targeting this market by Pacific Island producers is only recommended if some type of comparative advantage can be established. A few of these advantages were identified, but their sustainability is not certain. Business opportunities and contacts are suggested.

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## 1. Introduction

The development of fisheries in remote locations of the Pacific Islands is often constrained by problems of access to markets. Numerous attempts have been made in recent decades to alleviate these difficulties by such techniques as the construction of freezers and the use of fish-collection vessels. These endeavours, however, have usually not been successful. An alternative development scheme trialed by several countries has been the low-technology production of a pre-served jerky, based on the abundant offshore tuna resources. A review of the progress of Pacific Island tuna jerky projects is given in Roberts (1994).

Tuna jerky from the Pacific Islands is currently being sold on a limited scale to American consumers for a retail price equivalent to US\$89.20 per kg<sup>1</sup>. This, in conjunction with the fact that there are 20 million potential consumers in the urban areas of Honolulu, Seattle and southern California, presents a very appealing scenario to fish jerky processors. Although there have been studies of the market opportunities for Pacific Island tuna jerky in Australia, New Zealand and Japan, the scope for selling jerky in the United States has not received detailed attention. To explore this opportunity, the South Pacific Commission contracted a consultant to assess the current situation and prospects for fish jerky at selected locations in the western United States. The terms of reference for the assignment are given in Appendix 1. The consultant spent three working days in Honolulu, three days in Seattle, and four days in southern California during late June and early July 1996.

## 2. Previous assessments of the dried-fish markets in the United States

In July 1987 a seafood consumption study was carried by the Ocean Resources Branch of the State of Hawaii Department of Business and Economic Development to gauge the seafood consumption habits of the residents of Hawaii. The 400 people of the study indicated that about one per cent of the seafood they consumed was in dried form and this was predominantly dried aku (skipjack). One of the conclusions of the study was that most seafoods are perceived as coming from Hawaii waters, despite the fact that over three-quarters of the seafood consumed in Hawaii originates from out of State, suggesting that consumers prefer to eat locally-caught fish.

The National Marine Fisheries Service statistics (NMFS 1995) show that the annual per capita consumption of cured fish products (a category which includes smoked fish and fish jerky) declined from 0.5 lb (0.22 kg) in 1974 to 0.3 lb (0.13 kg) in 1994.

Because on the West Coast fish jerky and smoked salmon are often sold together, marketing information on smoked salmon may be relevant to fish jerky. Brooks and Anderson (1993) carried out a nation-wide survey in February and March of 1990 of 691 restaurants, retail outlets, and gourmet shops. Smoked salmon is most common in gourmet shops, 56 per cent of which carry the product. The survey also showed that the gourmet shops are the least sensitive of the three markets to price changes.

## 3. Activities and perceptions of the present market situation

### 3.1 Activities in Hawaii

On arrival in Honolulu the issue of tuna jerky marketing was discussed with 12 individuals familiar with the fish-processing or seafood-marketing situation in Hawaii (Appendix 2). Subsequently, 26 liquor stores, convenience shops, supermarkets, and fish retail outlets were visited in the Waikiki, Honolulu, Pearl City, and North Shore areas. Samples of each different type of fish jerky product encountered were purchased. The above activities enabled the contacting of four processors of dried marlin jerky, distributors of seafood products with interest in dried fish, and four snack-food distributors. Contact was also made with three individuals able to offer trade promotion advice

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<sup>1</sup> US\$2.50 for 28 grams.

and with a tuna-jerky processor in the Marshall Islands. All of the above individuals and/or firms were based on Oahu, with the exception of one on Maui and five in Kailua-Kona on the island of Hawaii. Samples of the jerky produced by Teikabuti Fishing Company in Kiribati were shown during discussions, for comments on appearance, packaging and taste.

### **3.2 Current situation in Hawaii**

In Hawaii fish jerky is known as a snack food and not as a seafood item. Aside from the Kiribati tuna jerky observed at one fish market, the only fish jerky available is from marlin and is usually marketed alongside beef jerky. Tuna jerky is mainly produced in the Kailua-Kona area, where there is apparently a heritage of producing both yellowfin and marlin jerky. The current high price for yellowfin is responsible for the present absence of yellowfin jerky in retail outlets. Individuals familiar with the seafood business in the State of Hawaii indicate there are many businesses involved in the production of jerky, as well as a large number of 'backyard' operations. Although the Kiribati product is distributed by a sea-food distributor, most of the marlin jerky is marketed through the snack-food distribution system.

Beef jerky is a popular item for Hawaii residents as well as tourists and is carried in most liquor, convenience and grocery stores. Turkey jerky is considerably less known, and was only encountered in three retail outlets visited.

Many retail fish stores carry dried yellowfin and dried skipjack (a non-marinated product), both of which are cut in strips about 30 cm long and 2 cm wide. Dried cuttlefish from Thailand has a texture resembling jerky and is sold in many grocery stores. Clam jerky was found at one seafood speciality shop.

The nine different marlin jerky products encountered during the survey ranged in weight from 28 g to 226 g. All contained a product which appeared to be similar to tuna jerky, except for the stringy 'Honey Sesame Fish Mix' and the relatively chunky 'BBQ Marlin Jerky'. The 226 g product is an attempt at a gift pack and had a label with the statement 'Aloha from Kona Hawaii, Marlin fishing capital of the world'. Four of the labels of marlin jerky products stated 'No preservatives, no MSG<sup>2</sup>, one listed monosodium glutamate (a flavour enhancer), one listed sodium benzoate (a preservative), one had no preservatives or monosodium glutamate, but did not emphasise the fact, and one had no label at all. All were in conventional (non-vacuum) pouches and the large gift pack was covered with an additional colourful box with a three-paragraph story about the heritage of the product. Nutritional facts were given on four of the products (all from one producer) and one had some Japanese characters on the label.

Prices for the Hawaiian products in the stores ranged from \$10.00 for the gift pack to \$0.99 for the 'Hawaiian Dried Marlin'. This is equivalent to a retail price range of 3.3 to 7.9 cents per gram. For comparison purposes, the tuna jerky produced in Kiribati sold in a Honolulu retail shop for 8.9 cents per gram, while beef jerky and dried cuttlefish sold in convenience stores for about 5 cents and 6.5 cents per gram respectively. Details of the prices and manufacturers are given in Table 1.

The raw material for marlin jerky comes from a variety of sources. Some of it is purchased from the many sport-fishing boats in Hawaii, but apparently most of it originates from Hawaii- or overseas-based longliners. It was not possible to obtain prices paid by jerky processors for marlin, but it is likely to be substantially lower than the price for low-quality yellowfin. One of the snack-food distributors in Honolulu stated that marlin jerky is purchased in 5 lb (2.27 kg) bulk containers from a processor in Kona for \$16.50 per kg, for packaging and sale in Honolulu.

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<sup>2</sup> Monosodium glutamate.

**Table 1: Fish jerky products encountered (Hawaii)**

<b>Product</b>	<b>Manufacturer and/or distributor</b>	<b>Retail price</b>
Honey Macadamia Nut Flavored Marlin Fish Jerky	Asia Trans and Co. Inc., P.O. Box 5314, Kailua-Kona, Hawaii, 96740 Tel. (808) 325-3287	\$10.00 for 226 g
Marlin Fish Jerky Onion Pepper Flavor	Asia Trans and Co. Inc.	\$3.00 for 49 g
Honey Sesame Mix Fish (marlin/cod)	Asia Trans and Co. Inc.	Sample given to retail outlet
Kona Marlin Jerky Spicy flavor	Asia Trans and Co. Inc.	\$3.00 for 49 g
Kona Marlin Jerky Taegu flavor	Asia Trans and Co. Inc.	\$3.89 for 49 g
Unlabelled marlin jerky – obtained in bulk sheets from Asia Trans and repacked by Taniguchi	Taniguchi Store, 2065, S. Beretania St. Honolulu, Hawaii, 96826 Fax: (808) 945-7963	\$3.50 for 60 g
Hawaiian Dried Marlin	Kona Dried Foods, P.O. Box 272, Kailua-Kona, Hawaii, 96745 Fax: (808) 326-1859	\$0.99 for 30 g
Miz Hawaii Brand BBQ Marlin Jerky (ingredient is given as swordfish)	Pacific Rim Seafood Inc. Honolulu, Hawaii, 96813 (not listed in telephone directory)	\$3.49 for 56.7 g
Hawaiian Dried Marlin	Hawaiian Dried Foods, P.O. Box 272, Kailua-Kona, Hawaii, 96745 Fax: (808) 329-2431	Sample given to retail outlet
Surf Jerky (added label states 'Tuna Jerky – Teriyaki')	Processed and packed jointly by Island Nation Enterprises and Teikabuti Fishing Company Ltd., P.O. Box 241, Bikenibeu, Tarawa, Kiribati	\$2.50 for 28 g

### **3.3 Activities in Seattle**

Initial contact was made with seven individuals familiar with the seafood business in the Pacific Northwest (Appendix 2). These discussions and visits to retail outlets led to the conclusion there would be five possible marketing channels for tuna jerky: seafood speciality shops, snack-food outlets, stores which sell camping food, health-food stores, and gourmet shops or grocery stores with large gourmet sections. Accordingly, firms in each of the five categories were contacted by telephone and those expressing interest in tuna jerky were visited. Samples of the jerky produced by Teikabuti Fishing Company in Kiribati were shown during discussions, for comments on appearance, packaging, and taste. The processors and retail outlets visited were located in the areas of North Seattle, Shoreline, Ballard, Downtown, Lake City, University District, and Munroe. Samples of salmon jerky were obtained and information on other potential competitors with tuna jerky was recorded. Issues related to tuna jerky were discussed with officials of the U.S. Food and Drug

Administration and U.S. Customs Service and relevant trade publications were obtained from the U.S. government bookshop.

### 3.4 The situation in Seattle

The only type of fish jerky readily available in the Seattle area is salmon jerky. This product is known to a moderate degree in the Seattle area, where it is perceived to be a speciality seafood item and not a snack food. It is displayed alongside smoked salmon in the seafood section of up-market grocery stores, retail fish shops which carry speciality seafood products, and in some tourist shops which carry food items. Most of the retail shops visited which carry several brands of smoked salmon also carry salmon jerky. Individuals knowledgeable in the Seattle seafood business state that many of the salmon-smoking businesses also produce a salmon jerky product. The Seattle telephone directory lists 18 fish-smoking firms.

Beef jerky is carried in virtually all the grocery and convenience stores of the area, as well as outdoor stores which sell camping food. About half of the stores which sell beef jerky also have turkey jerky, which usually has a label indicating the low fat content.

Of the five brands of salmon jerky encountered, all but one are smoked products. One product was sold in bulk form, one in a sealed plastic bag and the remainder in vacuum pouches. Two of the labels list nutritional information and three claim natural ingredients: 'Nothing artificial added', 'All natural', and 'No artificial preservatives or colourings!'. The brand not claiming this lists sodium ascorbate (an anti-oxidant) in the ingredients. Details of the prices and manufacturers are given in Table 2.

**Table 2: Fish jerky products encountered (Seattle)**

Product	Manufacturer and/or distributor	Retail price
Seattle Style Pepper Teriyaki Honey Smoked Salmon Jerky	AHP Enterprises, P.O. Box 39, Thorp, Washington	\$2.99 for 35 g
Seabear Ginger Salmon Jerky	Sea Bear, Anacortes, Washington 98221 Tel: (360) 293-4661	\$2.69 for 28 g
Trapper's Creek Pepper Salmon Jerky	Alaska Smokehouse, Woodin, Washington 98072 Tel: 485-2621	\$3.69 for 42 g
Circle Sea All Natural Salmon Jerky	Circle Sea Seafoods, Monroe, Washington 98272 Tel: (206) 483-1177	\$2.29 for 28.35 g
Bulk salmon jerky, sold by pound	Pure Foods Fish Market, market area, downtown Seattle	\$15.90 per lb

The four packaged salmon jerky brands encountered ranged in weight from 28 to 42 grams per pack and the retail prices ranged from 8.0 to 9.6 cents per gram of jerky, as compared to the 8.9 cents per gram charged in the shops for the Kiribati jerky. Beef and turkey jerky was observed being sold in Seattle convenience stores at a price which ranged from 4.0 to 7.1 cents per gram.



Prices for the raw material for the manufacture of salmon jerky are quite low at present. During the week of the survey, there was a salmon glut, with prices in Alaska averaging \$0.13/kg for pink salmon. A more usual price in Seattle this year would be \$0.65/kg for a frozen 45 kg block of headed/gutted pink salmon. It also should be noted that low-grade fish can be used for jerky and there is the possibility that, because salmon jerky is produced by salmon smokers, at least some of the jerky is produced as a by-product (or from rejects) from the smoking process, further reducing the raw material costs.

### **3.5 Activities in Southern California**

On arrival in southern California contact was made with 12 individuals knowledgeable in the seafood, wholesale grocery, and camping businesses (Appendix 2). These individuals suggested a variety of possibilities for marketing tuna jerky in the area and indicated a number of commercial concerns which may be interested in the product. Approximately 30 commercial firms in the area between San Francisco and San Diego were contacted by telephone. Because many food buyers do not directly receive telephone calls, voice mail messages were left. If a voice mail message remained unanswered after three attempts, it was assumed that the buyer had no interest in tuna jerky. Attempts were made to determine California producers of tuna jerky and one bankrupt business was visited. Retail shops were visited in San Diego, Orange, Los Angeles, Ventura and Santa Barbara counties to determine shopkeeper attitudes to tuna jerky from the Pacific Islands, learn consumer preferences, and to obtain samples of fish jerky produced in California. Food and Drug Administration (FDA) and National Marine Fisheries Service (NMFS) officials were contacted to obtain information on packaging/labelling requirements and the implementation of the new fish and fish products inspection system based on the HACCP plan of ensuring consumer safety (see Section 10).

### **3.6 The situation in Southern California**

There have been a number of recent attempts to produce tuna jerky in California. Phil's Smokehouse in Modesto in the centre of the state was the only active producer encountered. Three Star Fish Company in central Los Angeles (which owns L.A. Smoking and Curing) produced both salmon and tuna jerky in the past, but encountered marketing difficulties and subsequently dropped the product. Pure Foods (which also may be known as San Diego Uni and Seafood) in National City near San Diego, produced tuna jerky until very recently, but the company no longer exists. Another brand of tuna jerky was sold in the San Diego area as late as June 1995, but the company, whose headquarters was reportedly in Del Mar, is not operating. There is some chance that the National City firm and the Del Mar firm were actually the same business. Trader Joe's, a large chain of stores handling a considerable amount of gourmet snack foods, sells a salmon jerky under its own label. The fact that the package is identical to that used by the Phil's Smokehouse tuna jerky suggests that there may be some business connection. Markets catering to the expanding oriental community carry a jerky-like product called 'North Sea Fish Snacks' made from fish, food starch, and chilli.

On the basis of inquiries made during the short visit to southern California it appears that most fish jerky is marketed as a healthy gourmet snack food in up-market outlets. The label of Phil's tuna jerky states: '100% fat free', 'No MSG', 'All natural', and 'Dolphin safe', while the salmon jerky states: 'No MSG added' and 'All natural'. Unlike the Seattle and Honolulu areas, fish jerky is almost unknown by southern California consumers, although many individuals in the seafood business usually have some vague recall of the product. Similarly, fish jerky is not known as a camping food.

Beef jerky, and to a lesser extent turkey jerky, is very popular. Virtually every grocery, liquor, and convenience store sells meat jerky. Shopkeepers seem reluctant, however, to purchase jerky from anybody but the major producers. The consumers of beef jerky appear to be quite different from those being targeted by the distributors of fish jerky, with the latter being more sophisticated and affluent. Under California State Law marlin is considered a game fish and cannot be sold, hence the absence of marlin jerky in the retail outlets of the area.

The sole brand of tuna jerky encountered was sold in a 71 g pack for a retail price equivalent to 4.2 cents per gram. The size and price of the salmon, beef and turkey jerky marketed in the same retail outlet handling the tuna product were identical. The tuna and salmon jerky products were sold in sealed plastic pouches. Details of the price and manufacturers are given in Table 3.

**Table 3: Fish jerky products encountered (Southern California)**

Product	Manufacturer and/or distributor	Retail price
Phil's Original Ahi Jerky	Phil's Smokehouse, 500 9th St. Modesto, Ca 95354 Tel: 209-549-1206 Fax: 209-549-0136	\$2.99 for 71 g
Trader Joe's Salmon Fillet Jerky	Trader Joe's, 538 Mission Street, South Pasadena, CA 91030 Tel: 818-441-1177 Fax: 818-441-9573	\$2.99 for 71 g
North Sea Fish Snacks	Mean-Full Company Ltd., Taipei, Taiwan Fax: (02)591-1066 Tel: (02) 591-6128	\$0.69 for 28 g

According to a fish dealer who indicated he has sold tuna to both Phil's Smokehouse and Pure Foods for the manufacture of jerky, the cost of the raw (yellowfin tuna) has ranged from \$1.30 to \$2.30 per pound for yellowfin 'bloodline out and skin off'. The dealer also mentioned that with experience in the tuna trade, those prices could probably be reduced considerably.

#### **4. Fish jerky products presently available in the western United States**

During the consultancy, attempts were made to obtain as many different types as possible of fish jerky products presently available to consumers in Honolulu, Seattle, and Southern California. Eighteen different fish jerky and jerky-type products were encountered. The details of these products are given in Tables 1–3.

#### **5. Consumer attitudes on jerky products**

There was considerable difference in the attitudes of consumers between Honolulu and the West Coast (Seattle and southern California). In Honolulu fish jerky appeared to be an alternative to beef jerky, while on the West Coast it was a healthy gourmet snack food for up-market, discriminating consumers. West Coast consumers are quite concerned about the ingredients, healthful qualities, artificial additives, preservatives and monosodium glutamate, while these generally assumed much less importance in Honolulu.

A strong fishy taste was perceived to be a disadvantage in both Honolulu and the West Coast. Distributors interviewed invariably sniffed the package of the tuna jerky sample upon opening to detect any strong fishy odours. The ideal appearance, smell and taste appear to be something as close as possible to beef jerky.

The opinion has been expressed by a Pacific Island jerky processor that the Asian communities of the West Coast may be a favourable target group for a fishy-tasting product. The attitudes of

that group (according to a wholesale grocer who caters to the emerging Asian population of Orange County in California) appear, however, considerably different. Although they consume substantial amounts of fish products and appreciate a fish taste, those products are in the traditional form for dishes they are accustomed to eating. A novel snack-type fish product is therefore not likely to encounter much immediate popularity among American Asians.

One aspect of tuna foods warrants special mention. West Coast consumers are extremely sensitive to the fact that purse seining in the eastern Pacific for tuna has in the past resulted in a large amount of dolphin mortality. To demonstrate that marine mammals were not killed during the capture of the fish in a tuna product, many manufacturers now display a 'dolphin safe' logo on the tuna product. This is important for tuna jerky marketed in the United States.

## 6. Preferred product formats

Product formats other than jerky were considered. A non-marinated thicker-sliced product is known in Hawaii (dried aku, dried ahi) and a similar product (squaw candy) was consumed by native Americans on the West Coast. The reduced value-added component in the price relative to jerky (\$27.50/kg versus \$89.20/kg at the retail level) suggests that it may be a less favourable format for Pacific Island producers. The very limited market must also be considered.

One seafood distributor expressed the opinion that the jerky would sell better in round sticks. This idea was, however, dismissed by other distributors and consumers. One brand of marlin jerky is sold in a chunk form, but according to a shopkeeper it does not sell well. No presentation form for dried tuna appears to be more favourable than the conventional flat jerky.

Several distributors stated that any jerky (fish, beef, or other) should provide a choice of flavours to the consumer. During the consultancy, fish jerky flavours encountered included natural, teriyaki, chilli, pepper, ginger-smoked, honey-smoked, peppered-smoked, spicy, onion-pepper, macadamia, honey-macadamia, honey-sesame. A snack food distributor in Honolulu stated that for marlin jerky, teriyaki flavour was the most popular. A limited number of taste trials on the West Coast indicates the chilli is the most favoured. The importance that consumers attach to flavours reinforces the contention that the product is not usually purchased for its fish-like taste, but rather as a novel product or a alternative to meat jerky.

Despite the fact that tuna jerky on the West Coast is characteristically marketed as a quality gourmet health snack, the actual quality of the tuna jerky produced in California appears quite low. The sample examined (Phil's Original Ahi Jerky) was composed of irregular-shaped pieces with a substantial amount of bits/crumbs in the package. Some retailers/distributors commented very favourably on the relatively high quality of the Kiribati product used as a sample. A Fiji-based processor offered the opinion that, although jerky can be made with very low-quality fish, high-quality fish is required for high-quality jerky.

If tuna jerky were to target more discriminating up-market consumers, it has been suggested that a less chewy texture would be better. One retailer stated that the average cocktail party goer would not appreciate wrestling with a piece of tough food while at a sophisticated social function.

Distributors and retailers also had comments on the size of the package. They generally felt that a net product weight of 28 g (one ounce) is the smallest-quantity pack which should be produced. Several retailers felt that larger bulk packs from 2.5 up to 25 kg should be made available should wholesalers wish to package the product themselves under their own label. One fish products wholesaler who distributes to large up-market grocery stores explained that tuna jerky could be successful as an 'impulse item' placed near the cash register area but to do this, grocers would require the size of the package (not the amount of product) to be reduced, as the space in the 'impulse area' is very limited.

## 7. Product presentation

The view was often expressed by seafood distributors and retailers that the label and package would be the most important factor in selling a product such as tuna jerky. The ideal is to have a clever label that both calls attention to the product and in some way helps describe the product. In this regard, the services of a professional graphic artist with experience in seafood promotion may prove quite valuable. Two such artists are:

- Eric Woo Design, 77 Bishop St., Suite 2120, Honolulu Hawaii, tel (1-808) 545-7442;
- Les Hatta Graphic Art, 1012 Piikoi St., Suite 209, Honolulu Hawaii, tel (1-808) 596-0866.

One of the few comparative advantages that tuna jerky from the South Pacific has over similar products produced on the West Coast is the image that the origin of the fish is from clear, clean, blue waters of tropical islands. This concept should be incorporated into the packaging. Other unique aspects of the origin of the product should also appear on the outside. The tuna jerky from Kiribati selling in Hawaii, although it has a very clever label, does not take advantage of its unique geographic origin. Consider:

- The Kiribati product simply mentions 'Product of Kiribati' twice on the package—most consumers, even in Hawaii, have no idea what or where Kiribati is;
- One of the marlin fish jerky products from Hawaii has a package with: 'Aloha, fish jerky has always been an important food source in Hawaii. Long before refrigeration was invented, ancient Hawaiians took advantage of Hawaii's year round sunshine to cure and preserve fish. The processing of fish jerky has improved over the years in order to comply with the health and food standards of today. The traditional sharing of the catch has always existed in Hawaii and through our high quality Marlin Fish Jerky made in Kailua-Kona, Hawaii, you too can share in the best of our traditions with a taste of aloha'.

One of the major advantages of fish jerky over the conventional beef jerky is the health qualities. This should be stressed on the label. Most of the different fish jerky products encountered on the West Coast had labels which stated: 'all natural' and 'fat free'. Those products that contained no MSG, stated so prominently on the label. (Note: calling a product 'fat-free' is inaccurate as all meat, whether from lean animals or fish, has some fat in it. It is therefore more accurate to say 'low-fat' or 'contains minimum fat').

As fish jerky is relatively unknown, it is important that the consumer be able to clearly see the product. Distributors and retailers stressed that the label and packaging should not hide the product.

## 8. Price considerations

Detailed price considerations were beyond the scope of the consultancy, primarily because the prices at which Pacific Island jerky producers sell their jerky to overseas wholesalers were not available.

Some information on raw material prices for United States producers are given in sections 3.2, 3.4, and 3.6. The retail prices for the 18 fish jerky products encountered are given in Tables 1–3.

In general, the retail selling price for Kiribati tuna jerky in Hawaii, 8.9 cents per gram, is considerably above that in Hawaii for marlin jerky. Salmon jerky sells in Seattle stores for an average of 8.7 cents per gram, while the tuna and salmon jerky products encountered in southern California both sold for 4.2 cents per gram. Judging from comments obtained during the consultancy, it is doubtful that Pacific Island tuna jerky could increase its retail selling price relative to the other fish jerky products available.

## 9. Details of the factors affecting importing of dried seafood products

An important source of general information for exporters wishing to target the United States market in the publication *Importing into the United States*<sup>3</sup>. It provides information on entry of goods, invoices, assessment of duties, marking, special requirements and fraud.

For exporters of tuna jerky to the United States, especially those unfamiliar with international commerce, it is important to become familiar with the United States regulations for customs procedures, tariff situation, labelling requirements, and the future HACCP inspection scheme.

### 9.1 Customs procedures

According to official US publications, when a shipment arrives in the United States, the importer (or his designated agent) must file entry documents for the goods with the Director of Customs at the port of entry. Imported goods have not legally entered until after the shipment has arrived within the port of entry, delivery of the merchandise has been authorised by Customs, and estimated duties have been paid. It is the responsibility of the importer to arrange for the examination and release of goods.

- A commercial invoice must accompany the shipment. The invoice must include:
- The port of entry to which the merchandise is destined;
- The time and origin of shipment and names of shipper and receiver;
- A detailed description of the merchandise;
- The quantity in weights and measures;
- The value as expressed as a price in such currency as the owner or shipper would have received, or was willing to receive, for such merchandise if sold in the ordinary course of trade and in the usual whole quantities in the country of exportation;
- The kind of currency;
- All charges for the merchandise, including freight, insurance, and packing;
- The country of origin.

### 9.2 The tariff situation

Tuna which is simply dried is not subject to US customs duty; however if any preparation is done to the tuna, duty must be paid on import into the United States. According to US Customs Service officials in Seattle, the marination process for the production of tuna jerky is considered preparation and tuna jerky would therefore be a dutiable item. It appears, however, that at least some of the Pacific Island jerky is entering the US duty-free, presumably because Customs officials at the port of entry are not aware of the preparation involved in tuna-jerky processing.

The 1996 Harmonized Tariff Schedule for the United States indicates that for tuna, the duty is 6 per cent of the value of the product before an annual quota is filled and 12.5 per cent after that period to the end of the year. In 1996 the annual quota was filled in March.

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<sup>3</sup> *Importing into the United States* is a Customs Service publication and is available for a fee of \$6.50 from Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA, 15250-7954, USA, tel (202) 512-1800, fax (202) 512-2250.

Duty is payable on the 'transaction value', which is the price paid when sold for export to the United States plus any packing, commission, and royalty, but does not include the insurance, shipping or charges related to international shipment of the item to the United States.

### **9.3 Labelling and packaging requirements**

The Food and Drug Administration (FDA) regulates the labelling of food items which are involved in inter-state or international commerce. The FDA requires that on the principal display panel of the food item the following information be given:

- Identity of product in the English language;
- Net weight of the product in both metric and English measurement systems (must appear on the bottom 30% of the principal display panel);
- Ingredients in descending order of importance by weight;
- Name and place of business;
- Nutritional label, in standard format giving serving size, servings per container, total calories, calories from fat, and information on the percentage of daily values for a variety of nutrients.

Certain exemptions from the requirement for a nutritional label are allowed:

- Food produced by small firms (businesses that sell less than \$50,000 in food or \$500,000 in total sales);
- Food in a package having a total surface area of under 12 square inches, in which case the nutritional information must be available from the producing firm and contact details for the firm must be given on the label.

According to FDA officials, there are no packaging requirements applicable to jerky products.

Further information on FDA labelling and packaging requirements can be obtained from the Food and Drug Administration, Division of Programs and Enforcement Policy (HFS-155), Office of Food Labelling, 200 C Street, S.W. Washington DC 20204, tel (1-202) 205-5228. More detailed information on labelling is contained in the publication *A Food Labelling Guide*, available from the FDA.

## **10. HACCP seafood inspection scheme**

In December 1997 the United States Food and Drug Administration (FDA) will require that all seafood traded in the U.S. and involved in interstate and foreign commerce be handled and/or processed according to specific Hazard Analysis Critical Control Point (HACCP) plans. To determine how the HACCP scheme may affect the marketing of tuna jerky from the Pacific Islands, information was obtained from the SPC Post Harvest Fisheries Adviser, John Kaneko of Pac Mar Inc., the Food and Drug Administration Offices in Seattle, Portland, and Los Angeles, the National Marine Fisheries Service in Los Angeles, and three recent publications on the subject.

Unlike other seafood quality schemes which are based on periodic testing of the final product, HACCP seeks to check a product throughout its processing. It does this by determining steps in the production where deterioration in quality could occur, monitoring those steps, and being able to take swift action before minor difficulties become major problems. Griffin (1996) gives the seven elements of a HACCP plan:

1. Assessment hazards and risks as the product moves through the system;
2. Determination of critical control points (CCPs), which are stages in which a hazard must be controlled to keep it out of a product;
3. Determination of the critical limits for the products at the control points;
4. Monitoring the condition at the control points;
5. Correction of any problems detected;
6. Recording of information which will enable the tracing of a batch of product through the process;
7. Verification of the daily record-keeping system.

A HACCP plan for tuna processing would focus on temperature-related problems and would require strict temperature controls, especially when the fish is accepted into the processing plant. The FDA publication titled *Get Hooked on Seafood Safety* indicates that HACCP plans dealing with scombroid toxin-forming species should address the critical point of receiving raw materials and provides guidance on how to meet requirements: 'The first processor to take ownership after harvest of fish and fishery products of scombroid toxin forming species should ensure that vessels supplying such fish have in place measures to ensure that the fish were rapidly brought to, and maintained at, an internal temperature of 40 degrees F (4.4 degrees C) or below, and were not held for a period of time sufficient to allow histamine formation to begin at the temperature they were held. The processor may determine the time and temperature history of the fish by requiring certification of the fishing method and on-board handling practices, and a time temperature log from the harvesting vessel ...'

There are potential problems in implementation of HACCP plans in the Pacific Islands. In at least some of the areas where tuna jerky production has been undertaken, fishermen producing the raw material do not have access to ice to maintain the fish at low temperature. The manufacture of jerky requires several processing steps, each theoretically requiring coverage in the plan. It is not clear at this stage how the processing plants, especially those located in remote locations or in countries that lack fish-quality legislation, will be monitored for compliance with their HACCP plans. It is difficult to obtain specific information on this aspect from the FDA, which suggests that the details of the implementation arrangements have not yet been fully determined.

According to officials in the FDA office in Seattle, the burden of proof that a functional HACCP plan is in place is on the processor. An alternative, and perhaps more realistic, opinion was offered by an NMFS official in Los Angeles: the reality of the situation is that FDA is downsizing, but the United States still import seafood from over 100 countries. What is likely to occur is that the US importer will be required to have a copy of the overseas processor's HACCP plan, which will be closely scrutinised if there is a quality problem. Because the jerky is a tuna product, it is likely that testing for histamine and lysteria will be carried out more often than in the past.

There remains the possibility that at some point in the future compliance with HACCP regulations could be a form of non-tariff barrier. It should be noted that domestic US processors whose products are not involved in out-of-state commerce to any extent are not subject to the new FDA/HACCP regulations and this could be an important factor in assessing competition. Finally, there is also the possibility that US-based processors may pressure FDA authorities for diligent enforcement of HACCP regulations to reduce overseas competition.

## **11. Comparative advantages of Pacific Island fish jerky**

O'Neil (1992) studied the marketing of novel Pacific Island tuna products and concluded that sustainable competitive advantages should be identified and focused upon. Following this

approach, possible competitive advantages and disadvantages of the production of tuna jerky in the Pacific Islands relative to that of the United States were considered. In summary:

**Advantages:**

- Costs of labour – with the U.S. minimum wage presently at \$5.10 per hour, labour in most Pacific Island countries is relatively cheap; workers in a Tuvalu fish-processing plant located in an outer island are currently being paid US\$0.40 per hour.
- Intuitive appeal of fish from pristine Pacific Island waters – although not an advantage in Hawaii, this aspect could be important on the West Coast of the United States.

**Disadvantages:**

- Logistics of doing business at a distance – this includes high overseas communication charges in the Pacific Islands, high charges for travel on a marketing trip, more middlemen involved in the marketing process, losses due to currency exchange charges, and difficulties of dealing with the sometimes brutal business ethics while outside the country.
- Productivity of labour – although labour costs in the Pacific Islands are nominatively low, the cost-efficiency of that labour could easily be less than in the United States.
- Cost of raw materials – except in Pacific Island locations where there is a tuna-fishing base, it is likely that the cost of the raw materials for tuna jerky (tuna, marlin, salmon and ingredients for marinades) will be greater in the Pacific Islands than in the United States.
- Transportation to markets – United States domestic producers are required to pay much less to transport the finished product to market, especially relative to producers in countries which must airfreight.
- Hesitancy of foreign business – some distributors (especially the snack-food distributors) have no experience in importing and are hesitant to become involved in what they perceive may be extra work. This feeling may increase with the HACCP regulations.
- Cost of electricity – in locations where the jerky is not solar-dried, the electricity cost component of jerky production is substantial, and in most Pacific Island countries would be much greater than in the United States.
- Tariffs – for most of the year tuna jerky would be subject to a 12.5 per cent tariff when imported into the United States (Section 9.2).
- Economies of scale – mass production of jerky, as is presently done at many West Coast sites, reduces the cost of production per unit and may not be possible in the Pacific Islands.

## **12. Long-term prospects for Pacific Island tuna jerky in the western United States**

From the above it can be concluded that the marketing of fish jerky from the Pacific Islands in the western United States faces many challenges. The reality is that fish/tuna jerky is not a new product in that country, and Pacific Island producers face competition with established US processors who have lower costs. Tuna jerky produced on a large scale in California sells for less than half the cost per gram than the Kiribati product in Hawaii (4.2 cents per gram as opposed to 8.9 cents per gram). Aside from considerations about competition, the fact that some established US domestic producers of tuna jerky have not succeeded suggests additional difficulties for Pacific Island producers.

The sustainability of any comparative advantage is critical. The jerky produced in Kiribati and sold in Honolulu has an extremely clever label. Many people interviewed during the consultancy believe that it is actually the label which sells the product and produces a comparative advantage



over other similar products. Because US jerky processors have access to graphic artists (some of whom are specialised in seafood publicity), the sustainability of this advantage is doubtful.

Fish price, especially for high-quality fish, may be an advantage in the Pacific Island countries which have tuna-fishing bases. In Section 6.2 it is pointed out that the quality gourmet health snack market is probably the most favourable US market at present. If the contention that quality tuna jerky requires quality fish proves to be correct, and if the gourmet snack market values high-quality jerky, the availability of inexpensive high-quality fish may combine with low labour costs to form a comparative advantage. This, however, is a specialised situation which does not occur in most Pacific Island countries and the sustainability of the advantage is not certain.

### **13. Possible strategy for marketing**

The marketing of the existing tuna jerky from the Pacific Islands in the United States market appears to be a situation of head-on competition with established producers who are both in their own country and have lower production costs. Targeting this market by Pacific Island producers is only recommended if some type of comparative advantages can be identified. With the possible exception of the production of a high-quality product using high-quality but inexpensive fish and inexpensive labour, such comparative advantages were not identified during the present consultancy.

If for some reason the situation changes or Pacific Island producers learn of new opportunities, below is listed some information that should be considered.

For the West Coast, fish jerky should be marketed as a gourmet health snack food from the beautiful clear waters of the tropical Pacific. The ideal product would:

- Have all the FDA labelling requirements;
- Have a clever, eye-catching label;
- Show a dolphin-safe symbol on package;
- Stress the low or minimum fat content, all-natural nature of product;
- Contain no MSG;
- Have a short story on the product and its origin similar to that on the Hawaiian gift pack described in Section 7;
- Be packaged so that the product can be easily viewed;
- Have appearance, taste, and smell similar to beef jerky;
- Have a texture somewhat less tough than beef jerky;
- Contain few, if any, crumbs in the package;
- Have as light a colour as possible;
- Have all the sticks of jerky a similar width and length, and that length should be close to the length of the bag.

A few of the commercial firms interviewed during the consultancy expressed some mild interest in cooperative marketing of Pacific Island tuna jerky. These were both producers of tuna jerky and distributors of seafood products. Those commercial firms which expressed some interest (or which were noteworthy for some other reason) are given in Appendix 3.

#### 14. Advice and assistance in marketing and promotion

There are a number of sources of advice and assistance for the marketing and promotion in the United States of jerky from the Pacific Islands. These include government, quasi-government, and commercial marketing assistance, as well as trade fairs and specialised journals for promotion.

The United States Embassy in Suva has a Commercial and Information Specialist who has recently commenced providing certain types of information for exporters of products to the United States. According to the embassy officials, this information includes possible markets, import regulations, and credibility of US companies. Further details may be obtained from N. Singh, Commercial and Information Specialist, United States Embassy, fax (679) 305-106.

Another possibility for marketing assistance is a cooperative promotional campaign for the combined marketing of Hawaii and Pacific Island seafood, through the Hawaii Seafood Marketing Programme, sponsored by the Ocean Resources Branch of the State of Hawaii, Department of Business, Economic Development and Tourism. A Pacific Island seafood exporter is eligible to participate in this scheme if it establishes a partnership with a Hawaiian seafood-distributing firm. The Pacific Island partner is able to take advantage of the extensive Hawaiian promotional network, while the Hawaii trader gains advantage in sourcing and selling Pacific Island seafood throughout the U.S. mainland and overseas. In addition, the potential for flooding the local Hawaii market with Pacific Island fish is reduced.

According to the promoters, the programme will include market analysis, strategy development, promotional literature, advertisement, promotional events, and public-relation activities. Because the programme is concentrating on tuna and other pelagic species, tuna jerky would appear an especially appropriate commodity. Information concerning potential Hawaiian partners is supplied upon request. Further details may be obtained by contacting Craig MacDonald, Ocean Resources Branch, Department of Business, Economic Development and Tourism, P.O. Box 2359, Honolulu, Hawaii, 96813, fax: 1-808-587-2777.

In the United States there are a number of firms which specialise in providing marketing advice for seafood products on a commercial basis. One such company, MTC Inc. of Seattle, claims that it is able to take what it considers a reasonably good product and arrange for its sale for a fee. Further details of this service may be obtained from Andrew Peters, MTC, fax (1-206) 621-0411.

Many new products in the United States seafood business are promoted through seafood trade fairs. The largest of these on the West Coast is Sea Fare International, held in the latter part of September each year, with the 1996 show in Las Vegas. Details may be obtained from Sea Fare Exhibitions, fax (1-206) 789-6506. Another show, International Boston Seafood Show, is held each year on the East Coast and more than 700 companies exhibit in 1240 booths. Details may be obtained from Diversified Exhibitions, fax: (1-207) 842-5506.

Another commonly-used mechanism for publicising new seafood products is to advertise in the specialised seafood magazines. One major journal is *Seafood Leader*, whose publisher may be contacted at fax (1-206) 789-9193. Another is *Seafood Business* magazine, at fax (1-206) 286-8594.

The January 1996 issue of *Seafood Leader* states that a free informational video on exporting seafood to the U.S. is available from Flegenheimer Inc., tel: (1-800) 523-1616.

*Outdoor Retailer* magazine is a possible mechanism for publicising tuna jerky as a camping food. It is published by Miller Freeman, fax (1-714) 497-2093. There are also two major outdoor equipment shows each year: one in Reno and the other in Salt Lake City. The details of those exhibitions are available from Miller Freeman.

## 15. References

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NMFS (1995). Fisheries of the United States, 1994. National Marine Fisheries Service, Silver Springs, Maryland.

O'Neill, R. (1992). Processing of novel tuna products in the Pacific Islands: desk study on the market. Prepared by Excelink-Pacific for Australian Centre for International Agricultural Research.

Roberts, S. (1994). Processing novel tuna products in the Pacific. Information Paper 24, 25th Regional Technical Meeting on Fisheries, South Pacific Commission, Noumea.

### Terms of Reference

1. Trade: An assessment of the current situation and prospects for fish jerky products manufactured in Pacific Island countries in Hawaiian and selected West Coast locations. An evaluation of consumer attitudes to jerky products (beef vs. fish/tuna); preferred product formats, presentation, quality and price. Details of the factors affecting the import of dried seafood products (e.g. import regulations, certification, tariffs, health trade barriers, labelling, packaging, etc.).
2. Market/technical requirements: an assessment of the impact of the new US FDA seafood inspection plan on the conventional processes involved in the manufacture of fish jerky, or similar dried fish products, in the Pacific Islands. An appraisal and description of any specialised processes that could be involved in the manufacture of any new or improved product formats identified during the study.
3. Comparative advantage: A description of any comparative advantages that fish jerky and similar value-added dried fish products may have (if any) over other products in the marketplace, with recommendations on how Pacific Island processors can benefit from such factors.
4. Production/marketing strategies: an outline of where Pacific Island producers can obtain advice and assistance to be able to market and promote jerky and jerky-like products in the USA (e.g. trade promotion organisations), listing companies that are interested in purchasing products or investing in joint-venture opportunities.

**Individuals contacted**  
(for commercial firms see Appendix 3)

**In Fiji**

Steve Roberts, South Pacific Commission (New Caledonia)  
Mike Savins, Teikabuti Fishing Company (Kiribati)  
Kelvin Passfield, SCP Fisheries Consultants (Tuvalu)  
Robert Stone, Ocean Traders Ltd (Fiji)

**Hawaii**

Ray Clarke, National Marine Fisheries Service (NMFS)  
Kurt Kawamoto, NMFS  
David Itano, Hawaii Institute of Marine Biology  
Richard Shomura, Fisheries Consultant (NMFS, retired)  
Peter Wilson, Fisheries Consultant  
John Kaneko, Fisheries Consultant  
Neil Sims, Black Pearl Hawaii Inc.  
Mike McCoy, Fisheries Consultant  
Robert Harman, Fisheries Consultant  
Kevin Hart, Development Consultant  
Jim Cook, Pacific Ocean Producers

**Seattle**

James Ianelli, NMFS  
Richard Ranta, NMFS  
Daniel Ito, NMFS  
Lee Alverson, Fisheries Consultant  
John Peters, NW Food Technology Services  
Andrew Peters, MTC Marketing  
Jeff McNamara, Fisheries Attorney  
Darrel Thompson, Food and Drug Administration

**Southern California**

James Joseph, Inter-American Tropical Tuna Commission  
Witek Klawe, Inter-American Tropical Tuna Commission  
Charles Packham, Living Marine Resources Inc.  
Michael Joseph, Icomar Inc.  
Vicky Crabill, Crabill Wholesale Groceries  
Michael McGowan, Cabazon Inc.  
Dave Burney, United States Tuna Foundation  
Mike Rivkin, Famous Trails Inc.  
Diane Pleshner, California Seafood Council  
Jane Townsend, California Seafood Institute  
Bernies Fink, Van Camp Seafood (retired)  
Mike While, Fisheries Consultant

**Commercial firms expressing some interest in tuna jerky  
in the South Pacific or being otherwise noteworthy**

Jack Hadaway  
Island Traders  
Kailua-Kona, Hawaii  
tel: (808) 326-0786

Presently produces fish jerky but sees no scope for cooperation with Pacific Island producers of tuna jerky.

Chris Cho  
Asia Trans Company  
P.O. Box 5314  
Kailua-Kona, Hawaii 96745  
fax: (808) 329-6424

One of the largest producers of marlin jerky. Indicated that he cannot market all that he produces. Because yellowfin prices are high, he expressed some mild interest in seeing the tuna jerky produced in the Pacific Islands for possible co-distribution.

Ray Porter  
Kiana Seafoods  
85-810 Farrington Hwy  
Waianae, Hawaii 96745  
tel: (808) 696-8825  
fax: (808) 696-1777

Presently produces fish jerky. The same company under previous management (R.Mossman) had expressed interest in distributing Pacific Island tuna jerky, but new management did not respond to several telephone messages.

Bobby Kaneshiro  
M. Kane's Fish Market  
117-B Ahui St.  
Honolulu, Hawaii  
tel: (808) 537-6886

Produces dried aku (skipjack) from frozen fish imported from Japan. Does not foresee possibility of doing business with Pacific Island producers of tuna jerky.

Bill Kowalski  
Hawaii International Seafoods  
P.O. Box 30486  
Honolulu, Hawaii 96820  
tel: (808) 839-5010  
fax: (808) 833-0712

Imports fresh fish from the South Pacific and apparently has some involvement with Pacific Island tuna jerky. Did not respond to several telephone messages.

Glen Tanoue  
Tropic Fish and Vegetable Center  
1020 Auahi St.  
Honolulu, Hawaii 96814  
tel: (808) 591-2936  
fax: (808) 591-2934

Presently distributes tuna jerky from the Pacific Islands. He feels that it is a good product, but that packaging improvements should be made.

Rodney Okada  
 U. Okada and Company  
 P.O. Box 898  
 Honolulu, Hawaii 96808  
 tel: (808) 597-1102  
 fax: (808) 591-6634

Feels that there is not a very large market for tuna jerky and therefore only room for one distributor of the product in Hawaii.

Burt Yonemoto  
 Horimoto Fish Market  
 1020 Auahi St.  
 Honolulu, Hawaii 96814  
 tel: (808) 593-9071  
 fax: (808) 593-9072

Mildly interested in Pacific Island tuna jerky, but is worried about the shelf life of the product. Feels that handling marlin from a domestic processor would be easier.

David Marabella  
 Garden & Valley Isle Seafood Company  
 225 N.Nimitz #3  
 Honolulu, Hawaii 96817  
 tel: (808) 524-4847  
 fax: (808) 528-5590

Believes that too much marlin jerky is presently being marketed and sees little advantage of imported tuna jerky over the local marlin product.

James Kuwada  
 Flying Seafoods  
 73-4776 Kanalani St. #8  
 Kailua-Kona, Hawaii 96740  
 tel: (808) 326-7708  
 fax: (808) 329-3669

Expressed some mild interest in Pacific Island tuna jerky.

Arleen Bell  
 Paradise Traders  
 P.O. Box 2359  
 Honolulu, Hawaii 96817  
 tel: (808) 839-2724  
 fax: (808) 834-2315

Distributes snack foods, including marlin jerky. Expressed interest in tuna jerky from the Pacific Islands, but because of lack of importing experience was somewhat concerned over import procedures.

Ms. June  
 Munchies  
 Koburn Street,  
 Honolulu, Hawaii  
 tel: (808) 841-6641  
 fax: (808) 848-8862

Distributes snack foods and expressed some interest in Pacific Island tuna jerky.

Mark Wheeler  
 Wheeler Seafoods Inc. 14001  
 Lake City Way N.E.  
 Seattle, Washington 98125  
 tel: (206) 361-2744  
 fax: (206) 364-5308

Feels that sales of salmon jerky are dull but should improve. Would be interested in distributing Pacific Islands tuna jerky 'if the price was right'.

Jerry Packebush  
 Circle Sea Seafoods  
 17361 Tye St. S.E.  
 Monroe, Washington 98272  
 tel: (360) 483-1177  
 fax: (360) 794-9312

Depending on the price, would be interested in distributing a high-quality tuna jerky from the Pacific Islands under the Circle Sea label.

Felix Seafoods  
 Tye Street S.E.  
 Monroe, Washington 98272  
 tel: 1-800-253-3549

Has produced tuna jerky in the past, but now only does salmon jerky

Tony Casad  
 Seabear  
 Ancortes, Washington 98221  
 tel: (360) 299-8109

Although he feels that fish jerky will always have problems competing with the price of beef jerky, expressed some interest in seeing samples of tuna jerky from the Pacific Islands.

John Barnett  
 Ocean Beauty Seafoods  
 1100 W. Ewing  
 Seattle, Washington  
 tel: (206) 284-6700

Large distributor of seafood products. Feels that, although there is probably not a large market for Pacific Island tuna jerky, they would have some interest in the product if retailers were interested.

Jeff Baron  
 Pacific Food Service  
 1800 N.E. 44 St., Suite 201  
 Renton, Washington  
 tel: (206) 226-7217  
 fax: (206) 226-4739

Broker and distributor of seafood products. Expressed some interest in tuna jerky from the Pacific Islands.

David Feiths  
 Recreational Equipment Inc.  
 Seattle, Washington  
 tel: (206) 395-3780

Very large distributor of camping equipment and camping foods, including meat jerky. Although tuna jerky may appeal to REI customers, did not respond to several telephone messages.



Ron Christianson  
 Port Chatham Smoked Seafood  
 Seattle, Washington  
 tel: (206) 783-8200

Although this company with several retail shops may be well placed to distribute Pacific Island tuna jerky, did not respond to several telephone messages.

Mr Vinny  
 Pure Foods  
 1545 Tidelands #G  
 National City, California

Bankrupt former producer of tuna jerky.

Phil Carlson  
 Phil's Smokehouse  
 Modesto, California 95354  
 tel: (209) 549-0136  
 fax: (209) 549-1206

Supplies tuna jerky to the Trader Joe's chain of stores. Expressed some interest in obtaining 'all-natural' tuna jerky in bulk from the Pacific Islands.

Marie Foresyth  
 Trader Joe's  
 538 Mission Street  
 South Pasadena, California 91030  
 tel: (818) 441-1177  
 fax: (818) 441-9573

Large chain of speciality shops which carry the tuna jerky produced by Phil's Smokehouse. Expressed mild interest in examining Pacific Island tuna jerky made with 'all-natural ingredients'. Stated that the tuna jerky was 'doing quite well'.

Howard Cline  
 Three Star Fish Market (and L.A. Smoking and Curing)  
 1300 Factory Place  
 Los Angeles, California 90013  
 tel: (213) 624-2101  
 fax: (213) 624-2369

In the past produced tuna jerky, but it did not sell well and therefore has no interest in distributing tuna jerky made by other processors.

Dave Fong  
 Cost Plus Imports  
 San Francisco, California  
 fax: (510) 893-7300

Large chain of speciality import stores which handle snack-food items. Although they do not presently carry jerky, interest was expressed in Pacific Island items.