



## Desarrollo sostenible de las pesquerías artesanales en el Arco Atlántico

## Diversification strategies in the USA fishing sector

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# Diversification strategies in the USA fishing sector

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## 1. Introduction

According to a recent report by the FAO on the state of World Fisheries and Aquaculture 2010, USA became the fourth largest producer of catches, which were equal to 4.3 million tons, in 2008<sup>1</sup>.

Recent data collected in the 2010 report of the Fisheries Statistics Division of the National Marine Fisheries Service (NMFS) indicate that in 2009 the commercial fishing catch of the 50 USA states amounted to 3.6 million metric tons, which is equivalent to about 3.9 billion dollars, which represented a decrease of about 2 million metric tons compared to the commercial catch in 2008, which is equivalent to about 502 million dollars (see Table 1).

Table 1. USA commercial catches.

Year	Thousands of pounds	Metric tons	Thousands of dollars
2008	8,325,814	3,776,564	4,383,820
2009	7,867,333	3,568,599	3,882,178
Total	16,193,147	7,345,163	8,265,998

Source: [http://www.st.nmfs.noaa.gov/st1/fus/fus09/02\\_commercial2009.pdf](http://www.st.nmfs.noaa.gov/st1/fus/fus09/02_commercial2009.pdf)

According to the NMFS (2010), in 2009 the six most caught species in the USA were: pollock, menhaden, salmon, and some species of flatfish, cod and crabs. In contrast, the six most important species from an economic value viewpoint were: crabs, scallops, shrimp, salmon and lobster. Considering the different states, Alaska was the state which caught the most (1,859,728.717 metric tons), followed by Louisiana (453,592.37 metric tons), Virginia (189,329.455 metric tons), California (173,998.033 metric tons), and Massachusetts (161,478.883 metric tons)<sup>2</sup>. In Figure 1 the USA fisheries in the Western and Central Pacific Ocean are displayed.

According to FAO, in 2009 the USA was the largest importer of shrimp<sup>3</sup>. In the state of Alaska boats catch a wide variety of white fish and shellfish. The most important fisheries in Alaska are salmon, crab, herring, halibut, shrimp, pollock, black cod and Pacific cod. The habitat of the Alaskan King Crab and the availability of fresh crab are shown in Figure 2 and Table 2, respectively.

<sup>1</sup> FAO (2010), page 14.

<sup>2</sup> National Marine Fisheries Service Office of Science and Technology, NMFS Fisheries Statistics Division (2010), pages 4 and 7.

<sup>3</sup> FAO (2010), page. 63.

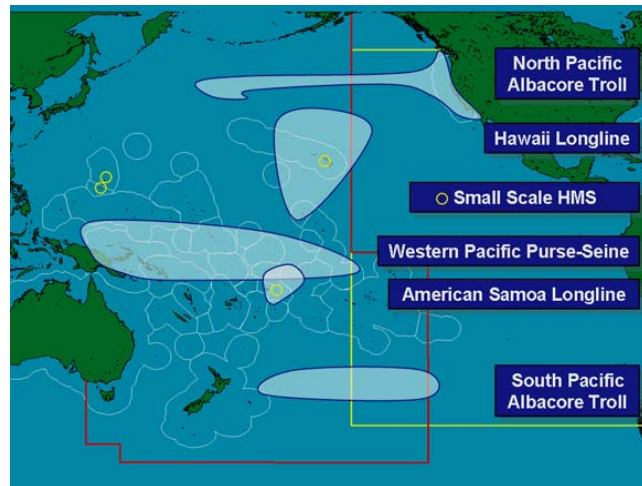


Figure 1. The USA fisheries in the Western and Central Pacific Ocean (WCPO)  
 Source: [http://www.fpir.noaa.gov/IFD/ifd\\_wcpfc\\_fisheries\\_map.html](http://www.fpir.noaa.gov/IFD/ifd_wcpfc_fisheries_map.html)



Figure 2. Habitat of the fresh Alaskan King Crab.  
 Source: <http://www.fishex.com/>

Table 2. Availability of fresh crab from Alaska by fishing ground and month.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Red King Crab (Norton Sound)						X	X	X				
Golden King Crab (Aleutian Islands)									X			
Red King Crab (Bristol Bay)										X	X	X
Blue King Crab (St. Matthew)										X	X	
Snow Crab (Bering Sea)	X	X	X									

Source: <http://www.fishex.com/>

50% of shellfish production in the USA comes from Alaska. Studies published by the Alaska Department of Fish and Game (ADFG) indicate that the total value of commercial fishing in Alaska is

1.5 billion dollars for fishermen, with a wholesale value of 3.6 billion dollars. The seafood industry is estimated to contribute with 5.8 billion dollars and 78,500 jobs to the economy of Alaska<sup>4</sup>.

The most valued fishery in the state of Alaska is the sockeye salmon and is developed in Bristol Bay. Southeast Alaska, Prince William Sound, Alaska Peninsula and Kodiak are the main producing areas. Shellfish is the second most valued fishery in Alaska and is developed in the waters of the Bering Sea. Also, groundfish fishing and herring fishing are important.

The Alaskan halibut fishery is regulated by a system of individual transferable quotas (ITQ). The highest concentration of Pacific halibut<sup>5</sup> is situated in the Gulf of Alaska. The catch of halibut in Alaska accounts for 80% of all catches of Pacific halibut in North America. Figure 3 shows the habitat of the Pacific halibut.



Figure 3. Habitat of the Pacific halibut.  
Source: <http://www.fishex.com/seafood/halibut/halibut.html>

Anglers also contribute to USA domestic economy. In 2009 catches from recreational fishing in the USA, that is, which is done as a hobby or sport, accounted for 8% of the total catch, which is equivalent to approximately 391 million fish. Most of the catches came from the Atlantic coast (approximately 51% of total catches), the Gulf of Mexico (44% of total catches) and, to a lesser extent,

<sup>4</sup> <http://www.adfg.alaska.gov/index.cfm?adfg=fishingCommercialByFishery.main>

<sup>5</sup> The commercial fishing of halibut in the Pacific Ocean is regulated by International Pacific Halibut Commission.

the Pacific Ocean (3% of total catches). The states which have recorded the largest number of anglers are Florida, North Carolina, New Jersey, New York, Massachusetts and Maryland<sup>6</sup>.

## 2.Objectives

The main purpose of this report is to identify and provide a detailed description of the diversification activities that provides commercial and recreational USA fishing sector with alternative employment. Figure 4 shows a map of the USA by states.

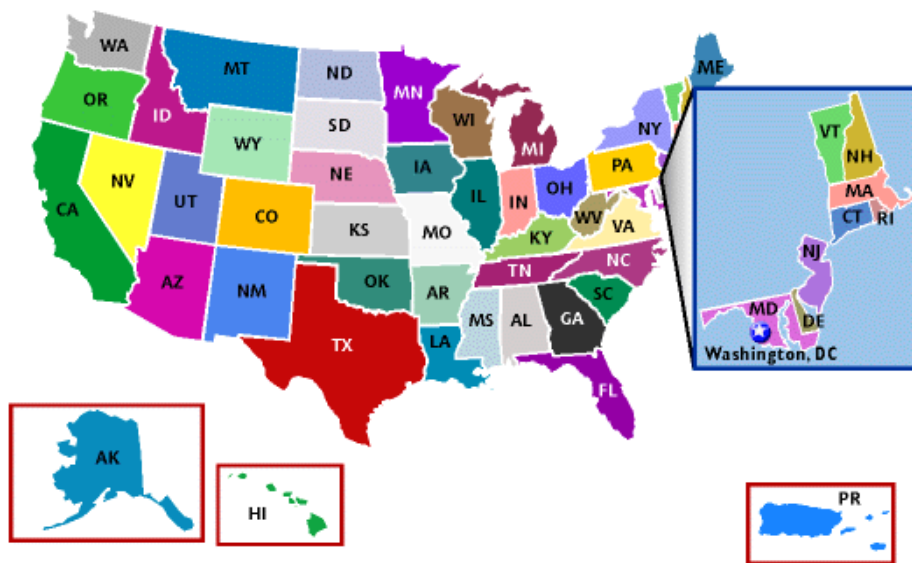


Figure 4. USA map with its 50 states.

Source: <http://www.nbio.gov/portal/server.pt/community/national/1338>

Following Ellis (2000), diversification is “the process by which a household increases the diversity (i.e. number) of its income generating activities [...]. The purpose of diversification is thus to develop portfolios of income generating activities with low covariate risk among their components”<sup>7</sup>.

The Article 3 of Regulation (EC) no. 1198/2006 of the European Fisheries Fund defines diversification as “a strategy to increase the variety of types of firms, services or products in a fishing home and company”<sup>8</sup>.

<sup>6</sup> National Marine Fisheries Service Office of Science and Technology, NMFS Fisheries Statistics Division (2010), pages 20 and 21.

<sup>7</sup> It comes from Brugère, C., Holvoet, K. and Allison, E., (2008), page 5.

<sup>8</sup> Frangoudes *et al.*, (2008), page 2.

In the fisheries context, there are many definitions of diversity. It is worth highlighting the following two definitions:

- "The diversification in the fishing sector refers to the expansion of the potential benefits of fishing beyond the capture. [...] Diversification strategies have been common, traditionally, in many coastal areas; fishermen have combined fishing with other activities such as agriculture, navigation and maritime commerce. Nowadays, diversification of activities can be divided into two categories: traditional (sale and processing) and tourism-related" (K. Frangoudes et al., 2008: vi y 27);
- "Complementary activities to production, but linked with the product, the job or the business that fishers practise to get an additional income but also to promote their products, job or port (for less than 50% of the total turnover) [...]. Therefore diversification constitutes a new strategy for the fisher to practise fishing activities (capture or extraction) simultaneously with other activities in continuation with the production activity, or based on the fishing business" (L.M. Henichart et al., 2010: 4; J.P. Boude et al., 2010: 14).

### **3. Material and methods**

In order to collect enough information on economic diversification activities related to professional fishermen in the USA, an extensive and direct search has been carried out in various Internet databases and journals in Universidad de Huelva library; in USA databases; in websites in Google Scholar and Google Books; in the search engine Bing; in the Free Library; in the published company information of American companies; in official fishing websites; in online fishing magazines and newspapers; in articles published in national and international magazines; and in fishermen's associations in the USA.

### **4. Results**

In the USA, diversification activities related to the commercial fishing sector that have been found are related to the work of professional fishermen in processing, canning, packaging and direct or online seafood sale to consumers (Activity 1). In the area of education, a course on aquaculture of cod has been found, in which fishermen take active part in the area of Maine (Activity 2).

On the Northwest coast of the USA there are many fresh seafood processing plants that employ fishermen. For example, in Washington County they are: a) Alaska General Seafoods (AGS), b)

American Seafoods Company, LLC, c) Alyeska Seafoods, Inc., d) Trident Seafoods Corporation; e) Unisea, Inc. f) Icicle Seafoods, Inc. There are also companies involved in the online direct sale of packaged seafood such as: i) Icicle Seafoods, Inc. in Seattle; ii) FishEx in Alaska; iii) Fishermen direct Seafoods in Oregon; and iv) Alaska Sausage & Seafood Company, Inc. in Alaska. Figure 5 displays the canned salmon produced by Icicle Seafoods, Inc.



Figure 5. Canned salmon produced by Icicle Seafoods, Inc.

Source: <http://www.icicleseafoods.com>

Fishing trips with tourists are also an alternative to diversify the fishing tourism sector in the USA. Most of the diversification activities found in this section are addressed to rod fishing tourism and they aim to promote and enhance fishing tourism as a sport without degrading the marine environment. Fishing tourism “allows you to carry out the transportation of tourists and commercial catch of fish simultaneously.” Tourists participate while being on board a ship. Some boats in which the captain of the boat and the crew members make daily fishing trips with tourists are: Bass-Tub Sportfishing and Captain Joe's Pacific Sports Fishing Charter, LLC in San Francisco, California and Fin Seeker Sport Fishing in Virginia<sup>9</sup> (Activity 3).

Finally, there is a group of ecological activities which are addressed to tourists. These include visits to areas where there are whales or blue dolphins. It is interesting to highlight the ecological tour which is organized by Captain Joe's Pacific Sports Fishing Charters, LLC to see whales in the bay of San Francisco<sup>10</sup>, and Captain Paul Christian to see the blue dolphins in Georgia<sup>11</sup> (Activity 4).

### Brief description of the fishing diversification activities in the USA

Next, the fishing diversification activities which have been found in the USA are explained, and additional information on activities in tables is attached.

<sup>9</sup> <http://www.finseekersportfishing.com>

<sup>10</sup> <http://www.captainjoes.com/fishingtrips.html>

<sup>11</sup> <http://shrimpcruise.com>



### 1) Fishing and processing companies of seafood in the Northwest USA

Table 3 shows the fishing and processing companies of seafood in the USA.

Table 3. Fishing and processing companies of seafood in the USA.

Name of the activity	Address	City	Contact person	Telephone / Fax	Contact email	Web site
Alaska General Seafoods (AGS)	6425 Northeast 175th St	98028 Kenmore, WA	-	Tel: (425) 485-7755. Fax: (425) 485-5172	contact@akgen.com	www.akgen.com
American Seafoods Company, LLC	2025 1st, Ave., Suite 900	98121 Seattle, WA	Margaret E.L. Stacey (editora)	Tel: (206) 374-1515. Fax: (206) 374-1516	sales@amsea.com	http://www.americalseafoods.com
Alyeska Seafoods, Inc.	303 NE Northlake Way	98105 Seattle, WA	Alec Brindle (presidente)	Tel: (206) 547-2100. Fax: (206) 547-1808	-	Sin página web
Tridents Seafoods Corporation	5303 Shilshole Ave. NW	98107 Seattle, WA	-	Tel: (206) 783-3818. Tel: (800) 426-5490 Fax: (206) 782-7195	consumeraffairs@tridentseafoods.com	http://www.tridentseafoods.com
Unisea, Inc.	15400 Northeast 90th St., PO Box 97019	Redmond, WA (98073-9719)	Mr Jim Donohue Mr Miki Taguchi	Tel.: (425) 881-8181. Tel: (425) 861-5386 Fax: (425) 861-5249	info@unisea.com miki.taguchi@unisea.com	www.unisea.com
Icicle Seafoods, Inc.	4019 21st Ave W	Seattle, WA 98199		Tel: (206) 282-0988. Fax: (206) 282-7222	sales@iciclesseafoods.com	http://www.iciclesseafoods.com
FishEx	1350 E 1st Avenue	Anchorage, AK 99501	Cade Smith	Toll-free 888-926-3474 Local 907-770-1660	seafood@FishEx.com CustomerService@FishEx.com	http://www.fishermansexpress.com http://www.fishex.com
Fishermen Direct Seafoods	Cannery Building 29975 Harbor bay P.O. Box 547	Gold Beach, OR 97444	Nancy Mendez Trenemen; Dixie Boley	Toll free: 1-888-523-9494  Tel: 1-541-247-9494	sales@fishermendirect.com	http://www.fishermendirect.com
Alaska Sausage & Seafood Company, Inc.	2914 Arctic Boulevard	Anchorage, AK 99503	Herbert Eckmann, President	Tel: (907) 562-3636 Call us Toll Free: 1-(800) 798-3636 Fax: (907) 562-7343	aks@ak.net	http://www.alaskasausage.com/

Source: Personal compilation.

A) Alaska General Seafoods (AGS) is a private company which is based in Western USA in Kenmore in Washington. AGS processes and delivers seafood to retail customers and distributors of shell fish and smoked fish around the world. Its speciality is salmon from the Pacific Ocean. AGS employs over 700 people. It has two of the largest shell fish processing plants in Alaska located in Ketchikan (Southeast) and Anchorage (Southwest), and a smaller one located in Egegik (Northwest). The plant in Ketchikan started work in 1990. The plant in Naknek was set up in 1999 by shell fish processors. Egegik is a city that mainly depends on commercial fishing and fish processing. Since 1999, the company has operated a canning plant. In Egegik, AGS provides accommodation to store and repair boats.



B) American Seafoods Company, LLC is a company that processes and sells high quality seafood worldwide. It is located in Seattle and has operated from 1987. Its boats fish in the Bering Sea. The fish that it catches are processed on board on factory ships and also in the facilities that the company has in Alabama and Massachusetts. The company produces fillets, surimi (fish protein), eggs, etc. from the Pacific hake, Alaska pollock, Pacific cod and scallops. This company is certified by: Friend of the Sea, Hazard Analysis & Critical Control Points (HACCP) and Marine Stewardship Council (MSC).

C) Alyeska Seafoods, Inc. is a shellfish company which is privately owned whose headquarters are located in Seattle. It has operated from 1986. In its ground-processing plant fresh and frozen shell fish is processed. It is worth pointing out that crab from Bristol Bay and Bering Sea is processed. The company generates annual revenues of between 50 and 100 million dollars. It has a staff which is approximately between 10 and 19 employees.

D) Trident Seafoods Corporation is a vertically integrated firm which is privately owned and which is based in Seattle. It fishes, processes and sells Alaska sea fish all over the world.

It was set up in 1973 by a group of fishermen. It has about 2800 employees, a fleet of trawlers, ten processing plants in Alaska (Akutan, Chignik, Cordova, Ketchikan, Kodiak, Bristol Bay, Petersburg, Sand Point, St. Paul and Wrangell), six in Washington (Anacortes, Bellingham, Motley, Pier 91, Seattle Shipyard and Tacoma Shipyard) and one in Oregon (Newport). The processing plant in Akutan, Alaska

is the largest in North America and this plant produces frozen fillets, surimi made from Alaska pollack, fish meal/flour and fish oil. In 1999 it acquired the Tyson Seafood Group. In 2006 it acquired the brand Louis Kemp. Since then, it has become the largest vertically integrated producer of seafood in North America



E) Unisea, Inc. is a company that was set up in 1974. Its headquarters are in Redmond in Washington. Unisea processes white fish and fresh caught shell fish, and then exports it all over the world. It has two processing plants in Dutch Harbor, Alaska and a smaller one which is located in Redmond. Its facilities produce products for pollock, Pacific cod, black cod, halibut and king crab from Bristol Bay, among others. They also make surimi, fish meal/ flour and fish oil. The company strives to preserve the environment and is proud to guarantee continual quality and sanitation in all its products, as well as maintaining the safety of their employees. Unisea is a member of the association of fishing vessel owners of the North Pacific Ocean (North Pacific Fishing Vessel Owners' Association, NPFVOA) and is certified by the USA Department of Agriculture (USDA), the EU and HACCP. Unisea also owns two hotels in Dutch Harbor: The Grand Aleutian Hotel and the UniSea Inn.



F) Icicle Seafoods, Inc. is one of the largest private fishing companies in Alaska where more than a thousand people work. It was founded in 1965 by Bob Thorstenson and a group of fishermen and workers who bought a canning plant in Petersburg, Alaska. Over the years the company has been expanding to other USA states. Icicle Seafoods processes and distributes fresh and frozen seafood from the North Pacific Ocean, mainly: crab from Alaska, black cod, halibut and salmon. In order to complete its operations, it has five floating processing vessels throughout Alaska, Oregon and Washington. They are named Arctic Star, Bering Star, Discovery Star, Northern Victor and RM Thorstenson. The company also has several onshore processing plants based in Seward, Petersburg (Alaska), Larsen Bay and Egegik (a small town situated in the Northeast of Bristol Bay), and a plant

operating in the city of Bellingham, WA. This plant has been open since April 1986. It operates from Monday to Friday all the year round and products with surimi seafood are made there. Figure 6 displays the processing plant “Seward Fisheries” in Seward, AK



Figure 6. Processing plant “Seward Fisheries” in Seward, AK.  
Source: <http://www.icicleseafoods.com/locations/swd/photos.aspx>

The work of the fish processors in Icycle Seafoods is tough. The company contracts them for the complete fishing season. The first eight hours a day are paid at a rate of \$ 7.75 / hour, the rest of the hours each day are paid as overtime at the rate of \$ 11.63 / hour. Figure 7 shows how some employees clean the fish in one of the plants which are owned by Icycle Seafoods in Alaska.



Figure 7. Employees clean fish in one of the plants which are owned by Icycle Seafoods in Alaska.  
Source: <http://www.icicleseafoods.com/locations/vsl/>

G) Fisherman’s Express-Alaska Seafoods (FishEx) is a private company from Anchorage, Alaska. It is dedicated to the processing of smoked fish, packaging and sale (direct wholesale and online) of high quality seafood products such as the Alaska King crab, halibut, shrimp, scallops , salmon and smoked salmon. Alaska King Crab is its speciality and it is sold fresh in season and frozen for the rest of the year. FishEx was set up in 1998 in Chickaloon, Alaska, by Cade, who was a commercial fisherman who caught crab in the Bering Sea, under the name of Fisherman's Express.<sup>12</sup> Currently it has a fish

<sup>12</sup>[http://alaskajournal.com/stories/061806/coa\\_20060618007.shtml](http://alaskajournal.com/stories/061806/coa_20060618007.shtml)

processing plant. FishEx generates annual revenues from 5 to \$ 10 million and employs from 20 to 49 employees. Working hours are from Monday to Friday from 7 am to 4 pm. Its website features real customer testimonials with a wide variety of recipes, a gallery of photos related to catches of King crab, etc. FishEx home web site is shown in Figure 8.



Figure 8. FishEx home web site  
Source: <http://www.fishex.com/>

As a note, according to Google, the quality of Fishex website is very good, because the global place for it is 165,713 and the local place is 73,002. Additionally, there are also 37 web sites which include direct links to the Fishex web site. Also, the magazine Women's Health published in February 2008, devotes an article to this company on page 111 under the title "Best Fish Fisherman's Express".<sup>13</sup>

H) Fishermen Direct Seafoods is a company which is owned privately and is based in Gold Beach in Oregon. It was set up in 2002 and is devoted to canning, packaging and the sale of fresh, frozen and canned fish. The idea to set up this company came from four fishermen in the Port of Gold Beach in 1998 when they began to sell the catch which came from their boats directly on the street and outside a restaurant. In the beginning, the sale of the products were made online and by phone, but from 2008 it stopped operating the online store, and nowadays the orders are only made by phone.

Among its fresh products there are: salmon, rock fish and ling cod. Fishermen Direct Seafoods is also devoted to the sale of: i) high quality frozen products, such as salmon, halibut from Oregon and albacore tuna loins, ii) smoked fish, and iii) gourmet canned tuna. On its website recipes come with their products. Figure 9 shows canned tuna of Fishermen Direct Seafoods. According to estimates, the

<sup>13</sup> The magazine is available online in the web site address: [http://books.google.es/books?id=tsUDAAAAMBAJ&pg=PA111&lpg=PA111&dq=Fisherman%E2%80%99s+Express-Alaska+Seafoods+FisheX+revenues&source=bl&ots=UfESKlrfMM&sig=TC4-pkr31Zedp63zwQxjbc-64mo&hl=es&ei=aCygTeC6E8rMhAfp5PDpBg&sa=X&oi=book\\_result&ct=result&resnum=3&ved=oCCYQ6AEwAjgK#](http://books.google.es/books?id=tsUDAAAAMBAJ&pg=PA111&lpg=PA111&dq=Fisherman%E2%80%99s+Express-Alaska+Seafoods+FisheX+revenues&source=bl&ots=UfESKlrfMM&sig=TC4-pkr31Zedp63zwQxjbc-64mo&hl=es&ei=aCygTeC6E8rMhAfp5PDpBg&sa=X&oi=book_result&ct=result&resnum=3&ved=oCCYQ6AEwAjgK#)

company has an annual turnover of between \$ 500,000 and \$ 1 million and employs approximately 4 employees<sup>14</sup>. Two employees from Fishermen Direct, Nancy Mendez Trenemen and Dixie Boley, recorded a video on YouTube on October 7, 2008, to announce that a skate had been born in the Port of Gold Beach. The video is entitled "Baby Skates inside Fishermen Direct at the Port of Gold Beach."



Figure 9. Canned tuna of Fishermen Direct Seafoods.

Source: <http://www.fishermendirect.com/fish-products/canned-albacore-tuna/hardwood-smoked-canned-tuna.html>

l) Alaska Sausage and Seafood Company, Inc. From its foundation in 1963 by Herbert Eckmann Eckmann and Eva Eckmann, it has been a private company which is devoted to processing and packaging of sausage and shellfish from Alaska for its subsequent sale. It is located in Anchorage, Alaska. It employs 32 people<sup>15</sup>. It has a processing plant and a retail store. The products that are offered: fish processing, a variety of gourmet sausages made from reindeer meat, smoked shellfish, smoked halibut and smoked salmon. The company sells locally and online through its website. Products from the firm Alaska Sausage and Seafood are displayed in Figure 10.



Figure 10. Products from the firm Alaska Sausage and Seafood.

<sup>14</sup> Data come from the web site: [www.manta.com/c/mmjgwco/fishermen-direct-seafoods](http://www.manta.com/c/mmjgwco/fishermen-direct-seafoods)

<sup>15</sup> [http://www.hoovers.com/company/Alaska\\_Sausage\\_Co\\_Inc/rtsthti-1.html](http://www.hoovers.com/company/Alaska_Sausage_Co_Inc/rtsthti-1.html)

Source: <http://www.alaskasausage.com/>

## 2) Education: Aquaculture course on cod farming in Maine, the Northeast Atlantic coast of the USA

Since 2009, the Maine Aquaculture Association (MAA)<sup>16</sup> offers the possibility of a free course, which lasts several months on cod aquaculture. The course is designed for commercial fishermen from the towns of Hancock, in Michigan and from Washington State. It was advertised on the internet under the name "Cod Farming for Maine's Commercial Fishermen". This type of program is the first which is carried out in the USA. MAA proposed it and it was developed in collaboration with Great Bay Aquaculture of Maine (GBAM)<sup>17</sup>, Coastal Enterprises Inc. (CEI)<sup>18</sup>, and Center for Cooperative Aquaculture Research (CCAR) of the University of Maine<sup>19</sup>.

The course lasts approximately between 12 and 15 weeks for one day a week and takes place in two phases. In the first part the course participants, whose number is between 10 and 15 fishermen, study the theoretical aspects related to cod biology, farming, management, etc. In the second part of the course, participants put into practise what they have learned in lectures. Classes are held in the towns of Franklin and Sorrento.

For more information about this program, read the article "Cod Academy opens doors" written by Muriel L. Hendrix on June 1, 2010. It is available online at the website The Working Waterfront<sup>20</sup>.



Figure 11. Photographs of the participants on the course which was held in Maine.

Source: [http://www.maineaquaculture.com/Upcoming\\_Events/Cod\\_Academy\\_Information/cod\\_academy\\_information.html](http://www.maineaquaculture.com/Upcoming_Events/Cod_Academy_Information/cod_academy_information.html)

<sup>16</sup> [www.maineaquaculture.com](http://www.maineaquaculture.com)

<sup>17</sup> <http://www.gbanh.com/index.html>

<sup>18</sup> [www.ceimaine.org](http://www.ceimaine.org)

<sup>19</sup> [www.ccar.um.maine.edu](http://www.ccar.um.maine.edu)

<sup>20</sup> <http://www.workingwaterfront.com/articles/Cod-Academy-opens-doors/13848/>

Figure 11 shows some photographs of the participants on the course which was held in Maine. More information on this course is presented in Table 4.

Table 4. More information on the course.

Name of the activity	Place	Contact person	Telephone / Fax	Contact email	Web site
Cod Farming for Maine's Commercial Fishermen	Maine	Sebastian Belle de Maine Aquaculture Association (MAA); Dick Clime, Coastal Enterprises Inc. (CEI)	207-622-0136 207-882-7552	maineaqua@aol.com rdc@ceimaine.org	<a href="http://www.maineaquaculture.com/Upcoming_Events/Cod_Academy_Information/cod_academy_information.html">http://www.maineaquaculture.com/Upcoming_Events/Cod_Academy_Information/cod_academy_information.html</a>

Source: Personal compilation.

### 3) Sport fishing: Fishing activities related to fishing tourism aboard a sightseeing boat

There are many fishing boats which are licensed to organize tours with groups of tourists to go fishing along the coast. For example, in the Bay of San Francisco the following boats can be found: Bass Tub; Butchie B; Captain Joe; Chucky's Pride; Happy Days; Kitty Kat; Lovely Martha; Miss Farallones; Primetime Sportfishing; SoleMan and Wacky Jacky.<sup>21</sup>

A complete list of all boats which are members of Golden Gate Fishermen's Association (GGFA) which are involved in fishing tourism in the USA can be seen on the web site of the association: <http://www.ggfa.net>.

#### Bass-Tub Sportfishing

Bass Tub is one of the vessels which belong to the Golden Gate Fishermen's Association (GGFA), which works in the protection of fisheries resources in California. The Bass Tub boat is used for recreational fishing with tourists in the bay of San Francisco. Tourists can go fishing for a day or half day with the ship's captain and his crew. They can also rent the boat to celebrate a birthday, a party, etc.

The vessel has a length of 15.24 m and about 44 people can be admitted as the maximum. It is very comfortable and fully equipped with air-conditioned cabin, microwave and TV. The species that

<sup>21</sup> [http://www.sfsportfishing.com/fleet\\_page.html](http://www.sfsportfishing.com/fleet_page.html)



tourists catch most on trips are: striped bass, halibut, salmon, rockfish and ling cod. Figure 13 shows a photograph of the tourists with their catches on the boat Bass Tub.



Figure 13. Photograph of the tourists with their catches on the boat Bass Tub.  
Source: <http://www.basstub.net/gallery/>

**4) Ecological tours: Ecological tourism activities which are aimed at observing whales or blue dolphins**

On the West Coast of the USA in San Francisco, Captain Joe's Pacific Sportfishing is a private company which has operated from 1989. Its annual income is below \$500,000 and has between one and four employees<sup>22</sup>. Captain Joe and his crew are members of the United States Coast Guard (USCG) and they are licensed to carry tourists to see whales (Blue, Grey and Humpback Whales), about 26 miles from San Francisco, around the South East Farallon Islands on one of the two boats that have: Kitty Kat has a capacity for 46 passengers, or Happy Days has a capacity for 38 passengers.

On the East Coast of the USA, in Georgia, Paul Christian is the captain of the boat Lady Jane, which is the only boat in the area which is authorized by the USCG to carry 49 tourists to fish shrimps and watch blue dolphins along the coast of Georgia.

Diversification activities with tourists are shown in Table 5.

Table 5. Diversification activities with tourists.

Name of the activity	Place	Contact person	Telephone / Fax	Contact email	Web site
Bass Tub Sport-Fishing	Berth 4, Fisherman's Wharf, San Francisco, CA, 94133	Captain Eric Anfinson	(415) 456-9055	webmaster@sfsportfishing.com	<a href="http://www.sfsportfishing.com/basstub.html">http://www.sfsportfishing.com/basstub.html</a>

<sup>22</sup> <http://www.manta.com/c/mmcv185/capt-joe-s-pacific-sprtshng>

Captain Joe's Pacific Sports Fishing Charter, LLC	945 Taraval Street, #319 (Fisherman's Wharf), San Francisco, CA 94116-2422	Captain Joe	(415) 752-5886 Fax: 415 566 2645	info@captainjoes.com	<a href="http://www.captainjoes.com/fishingtrips.html">http://www.captainjoes.com/fishingtrips.html</a>
Fin Seeker Sport Fishing	Captain Bob Robinson 203 Caspian Avenue Virginia Beach, Va 23451	Captain Bob Robinson	757-618-7421 Call Keech para información Fax: 757-437-0038	-	<a href="http://www.fineseekersportfishing.com/vb-charter-boat.html">http://www.fineseekersportfishing.com/vb-charter-boat.html</a>
Lady Jane Shrimp & Dolphin Cruise	Credle's Adventures 1200-B Glynn Ave. Brunswick, Georgia 31520	Captain Paul Christian	912-265-5711	info@shrimpcruise.com	<a href="http://shrimpcruise.com">http://shrimpcruise.com</a>

Source: Personal compilation.

## 5. Conclusions

The main purpose of this report is to identify and provide a detailed description of the diversification activities that provides commercial and recreational USA fishing sector with alternative employment. In the USA, diversification activities related to the commercial fishing sector that have been found are related to the work of professional fishermen in processing, canning, packaging and direct/online seafood sale to consumers (Activity 1). In the area of education, we have found a course on aquaculture of cod in which fishermen take active part in the area of Maine (Activity 2). Fishing trips with tourists are also an alternative to diversify the fishing tourism sector in the USA (Activity 3). Finally, there is a group of ecological activities which are addressed to tourists which include visits to areas where there are whales or blue dolphins (Activity 4).

## References

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- FAO, 2010. *El estado mundial de la pesca y acuicultura*. Departamento de Agricultura y Pesca de la FAO, Roma. [Available on the web site: [www.fao.org](http://www.fao.org)].
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- National Marine Fisheries Service Office of Science and Technology, NMFS Fisheries Statistics Division, 2010. *Fisheries of the United States 2009*, (ed.) Alan Lowther, Silver Spring, Maryland, 118 pages. [Available on the web site: [http://www.st.nmfs.noaa.gov/st1/fus/fus09/fus\\_2009.pdf](http://www.st.nmfs.noaa.gov/st1/fus/fus09/fus_2009.pdf)].

#### Directory of web sites:

#### Maps

Map of the fifty status of the USA:

<http://www.nbio.gov/portal/server.pt/community/national/1338>

Map of the Western and Central Pacific Ocean (WCPO) Fisheries:

[http://www.fpir.noaa.gov/IFD/ifd\\_wcpfc\\_fisheries\\_map.html](http://www.fpir.noaa.gov/IFD/ifd_wcpfc_fisheries_map.html)

Map of the habitat of the king crab from Alaska:

<http://www.fishex.com/galleries/maps/bering-sea.html>

Map of the halibut in the Pacific Ocean:

<http://www.fishex.com/seafood/halibut/halibut.html>

Fishing map: <http://www.myfishingmap.com>

#### Internet search engines

Bing: <http://www.bing.com>

Search engine of people, firms and industries: <http://www.hoovers.com/>

Search engine of firms and industries: <http://companydatabase.org>

Search engine of firms: <http://www.manta.com>

Firm directory FIS: <http://fis.com>

Free online library: <http://www.thefreelibrary.com/>

Google books: <http://books.google.com/>

Google scholar: <http://scholar.google.es/>

#### Fishing and processing firms

Alaska General Seafoods (AGS): [www.akgen.com](http://www.akgen.com)

American Seafoods Company, LLC: <http://www.americanseafoods.com>

Trident Seafoods Corporation: <http://www.tridentseafoods.com>

Unisea, Inc.: [www.unisea.com](http://www.unisea.com)

Icicle Seafoods, Inc.: <http://www.icicleseafoods.com>

Fisherman's Express-Alaska Seafoods (FishEx): <http://www.fishermansexpress.com;>  
<http://www.fishex.com>

Fishermen Direct Seafoods: <http://www.fishermendirect.com/>

Alaska Sausage and Seafood Company, Inc: <http://www.alaskasausage.com/>

#### Official fishing web sites

Database – Fish Base: <http://www.fishbase.org/search.php>

Fish photographs– Fish Species: <http://www.jjphoto.dk/introa-fish.htm>

International Pacific Halibut Commission: <http://www.iphc.int/>

National Oceanic and Atmospheric Administration (NOAA): <http://www.noaa.gov/>

NOAA Fisheries: <http://www.st.nmfs.noaa.gov/st1/>

NOAA's National Marine Fisheries Service (NMFS): <http://www.nmfs.noaa.gov/>

NOAA Fisheries Alaska: <http://www.fakr.noaa.gov/>

Alaska Department of Fish & Game (ADFG): [www.adfg.alaska.gov](http://www.adfg.alaska.gov)

ADFG - Commercial Fisheries:

<http://www.adfg.alaska.gov/index.cfm?adfg=fishingcommercial.main>

North Pacific Fishing Vessel Owners' Association (NPFVOA): <http://www.npfvoa.com/>

United States Department of Agriculture (USDA):

<http://www.usda.gov/wps/portal/usda/usdahome>

Friend of the Sea: <http://www.friendofthesea.org/>

Hazard Analysis & Critical Control Points (HACCP): <http://www.fda.gov/food/foodsafety/hazardanalysiscriticalcontrolpointshaccp/default.htm>

Marine Stewardship Council (MSC): <http://www.msc.org/>

Maine Aquaculture Association (MAA): [www.maineaquaculture.com/](http://www.maineaquaculture.com/)

Great Bay Aquaculture of Maine (GBAM): <http://www.gbanh.com/index.html>

Coastal Enterprises Inc. (CEI): [www.ceimaine.org/](http://www.ceimaine.org/)

Center for Cooperative Aquaculture Research (CCAR) of the University of Maine:  
[www.ccar.um.maine.edu/](http://www.ccar.um.maine.edu/)

UD Fish and Wildlife Service- Fishing: <http://www.fws.gov/fishing/>

### Magazines & newspapers

Alaska Journal of Commerce:

[http://alaskajournal.com/stories/061806/coa\\_20060618007.shtml](http://alaskajournal.com/stories/061806/coa_20060618007.shtml)

Alaska's newspaper: <http://www.alaska.com/>

Anchorage Daily News: <http://newspaperads.adn.com/SS/Tiles.aspx>

Magazine Women's Health: [http://books.google.es/books?id=tsUDAAAAMBAJ&pg=PA111&lpg=PA111&dq=Fisherman%E2%80%99s+Express-laska+Seafoods+FisHex+revenues&source=bl&ots=UfESKlrfMM&sig=TC4-pkr31Zedp63zwQxjBC-64mo&hl=es&ei=aCx9TeC6E8rMhAfp5PDpBg&sa=X&oi=book\\_result&ct=result&resnum=3&ved=oCCYQ6AEwAjgK#](http://books.google.es/books?id=tsUDAAAAMBAJ&pg=PA111&lpg=PA111&dq=Fisherman%E2%80%99s+Express-laska+Seafoods+FisHex+revenues&source=bl&ots=UfESKlrfMM&sig=TC4-pkr31Zedp63zwQxjBC-64mo&hl=es&ei=aCx9TeC6E8rMhAfp5PDpBg&sa=X&oi=book_result&ct=result&resnum=3&ved=oCCYQ6AEwAjgK#)

Fine Fishing Internet Magazine: <http://www.finefishing.com/>

Fly Fishing Magazines: <http://flytyer.com/>

Sport Fishing: <http://www.sportfishingmag.com/indexhome.jsp>

The Fly Fisherman: <http://www.flyfisherman.com/>

### Fly-fishing

Guide of the Fly Fisherman: <http://www.flyfisherman.com/>

Fly Fishing Clubs & Associations: <http://www.sea-ex.com/recreational1/fly3.htm>

Al Caucy Fly-Fishing: <http://www.mayfly.com/>

### Fishing-tourism

Golden Gate Fishermen's Association: <http://www.ggfa.net>

Bass-Tub Sportfishing: <http://www.sfsportfishing.com/basstub.html>

Sport Fishing with Capt Bob Robinson of Fin Seeker: <http://www.finseekersportfishing.com/>

Captain Joe's Pacific Sports Fishing Charter, LLC: <http://www.captainjoes.com/fishingtrips.html/>

Lady Jane Shrimp & Dolphin Cruise: <http://shrimpcruise.com>

Fishing Guides, Reports and Fishing Message Board: <http://www.fishreports.net/>

San Diego sport fishing: <http://www.sportfishsandiego.com/>

Sport fishing Charter Boats: [http://www.sfsportfishing.com/fleet\\_page.html](http://www.sfsportfishing.com/fleet_page.html)

Fishing Charter Boats: <http://www.sportfishermen.com/directory/charter-boats/>

### Others

Favourite resources and Links, Fisherman's Choice Charters and Guides of Alaska:

<http://www.akfishermanschoice.com/Favorite-Resources-Links.php>

Course on the cod farming in Maine:

[http://www.maineaquaculture.com/Upcoming\\_Events/Cod\\_Academy\\_Information/cod\\_academy\\_information.html](http://www.maineaquaculture.com/Upcoming_Events/Cod_Academy_Information/cod_academy_information.html)

The Working Waterfront:

<http://www.workingwaterfront.com/articles/Cod-Academy-opens-doors/13848/>

Midwest Open ICE fishing tournament in Michigan:

<http://www.midwestopentournament.com/index.html>

Saltwater Fishing Articles & Tutorials; Fishing reports and Tournaments:

<http://www.sportfishermen.com/>

Florida Fishing Tournaments:

<http://www.sportfishermen.com/tournaments/info/8876/>

Fishermen Direct Seafoods:

[www.manta.com/c/mmj9wco/fishermen-direct-seafoods](http://www.manta.com/c/mmj9wco/fishermen-direct-seafoods)

Captain Joe's Pacific Sports Fishing Charter, LLC:

<http://www.manta.com/c/mmcvl85/capt-joe-s-pacific-sprtfshng>

Sportsmen's Cannery & Smokehouse:

<http://www.sportsmenscannery.com/>