

**WRITTEN STATEMENT OF  
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A NON-PROFIT TRADE ASSOCIATION REPRESENTING  
RECREATIONAL DIVING AND SNORKELING**

**HEARING ON THE ENVIRONMENTAL AND ECONOMIC IMPACTS OF OCEAN  
ACIDIFICATION**

**BEFORE THE  
COMMITTEE ON COMMERCE, SCIENCE AND TRANSPORTATION  
SUBCOMMITTEE ON OCEANS, ATMOSPHERE, FISHERIES, AND COAST GUARD  
UNITED STATES SENATE**

**APRIL 22, 2010**

**INTRODUCTION**

Good morning Mr. Chairman, Senator Cantwell, and members of the Committee. I am Tom Ingram, Executive Director of the Diving Equipment and Marketing Association. Thank you for the opportunity to testify on the potential economic impacts of ocean acidification on the recreational scuba diving and snorkeling industries.

The Diving Equipment and Marketing Association (DEMA) is a non-profit trade association (501 (c) 6) based in San Diego California, representing the business and consumer interests of the recreational scuba and snorkel diving industries all over the world. DEMA's mission is to promote sustainable growth in safe recreational scuba diving and snorkeling while protecting the underwater environment.

My testimony today will focus on the interest of snorkeling and scuba diving participants in protecting and respectfully using the marine environment while keeping it clean and healthy, on the economic benefit of access to healthy dive sites for US and international recreational scuba diving and snorkeling interests, on job creation and economic benefit to communities based on diving activity and access to an attractive environment, and on the economic concerns of these industries should such access be lost due to ocean acidification or for any reason. I will also reiterate our industries' interest in participating in and assisting with policy development and implementation as such policies are considered.

**INTEREST OF SNORKELERS AND SCUBA DIVERS IN PROTECTING THE MARINE ENVIRONMENT**

DEMA strongly supports scientific and economic investigation to determine the potential impacts of ocean acidification and looks forward to working with Congress to ensure that the marine environment remains clean and healthy, a viable place for continued diving consumer use, and remains open to careful stewardship by diving businesses around the world. We applaud Congress for scheduling this hearing as a means of gathering information for such investigations.

The diving industry depends on continuing interaction with a healthy marine environment for its very existence, and is aware of the need for long term sustainability of these resources for all. Consequently, the diving industry is dedicated to protecting the marine environment for its own well-being and for the well-being of all. For these reasons DEMA's mission statement includes an expressed acknowledgment of the need for protecting the aquatic environmental.

Scuba divers and snorkelers are strong advocates for environmental protection in part because they can observe first-hand the coastal marine ecosystem, and can relate that information to friends, family and acquaintances. Divers have long been concerned with the effects of pollution and other potential sources of damage; whether from run-off that originates from populated regions in proximity to diving areas, from potential sources of CO<sub>2</sub>, or from other sources. Scuba divers and snorkelers are stewards of a unique environment upon which they depend for recreation and study. All "certified" scuba divers today are educated to maintain proper buoyancy and positioning while diving, which helps to prevent accidental damage to natural marine and other aquatic resources. Many divers seek additional training to better understand the complex nature of coral reef communities, fishery resources and how to contribute to the knowledge base needed to monitor and protect these environments. With their first-hand observation of these protected areas, divers can and do encourage others to protect these resources.

The most active divers in the U.S. today participate in diving activities in many areas of the country, including such locations as the Florida Keys National Marine Sanctuary, areas of California and Hawaii, and other U.S. territories in the Caribbean and in the Pacific. According to a study by the Professional Association of Diving Instructors (PADI), 78% of divers travel to dive within 12 months of receiving their initial diver training and certification.

According to a 2006 and 2009 DEMA study, today's most active divers fit the following profile:

- Age – Between 38 & 53 years old – Mean: 45 Median: 46
- 76% are male
- Household Income – 56% make between \$75,000 and \$100,000
- Occupation – 80% are White-Collar/ Professional/ Technical/ Management
- Home ownership – 93% own their own home
- Mortgage amount – Median of \$148,000
- Marital Status – 71% married
- Presence and age of children – 17% have kids under 18

Generally an affluent demographic such as described above is concerned with the environment and with the sustainable use of natural resources (Source: Murch, Arvin. 1971. "Public Concern for Environmental Pollution." *Public Opinion Quarterly* 35:100-106). The environmental concerns of divers are consistent with this study.

A 2003 study by Flexo, Hiner and Partners (FHP), which included divers and non-divers in the age range of 20 to 59, indicated that 81% participate in aquatic activities because they wish to be "closer to nature." In addition, a 2005 study by Knowledge Networks indicates that adults within this demographic (age 41 – 59) are attracted to "Adventure Activities" indicating an affinity for nature or "eco-related" activities (See EXHIBIT B).

Scuba divers and snorkelers regularly participate in such activities as underwater photography, observing and counting fish, reporting environmental concerns to state and federal authorities, and participating in beach and submerged coastal clean-up activities. Non-profit, U.S. based organizations, such as The Reef Environmental Education Foundation (REEF), the Coral Reef Alliance (CORAL), and the Project AWARE Foundation provide many opportunities for divers and others to understand more about reefs, ecosystem management, sustainable tourism, and how to become effective environmental advocates. To date for example, REEF has involved divers in more than 118,000 surveys of aquatic life, contributing to the knowledge base in areas of fish populations and invasive species. During almost two decades Project AWARE Foundation has completed thousands of beach and underwater clean-up activities involving divers and non-divers with an interest in protecting the marine and aquatic environments.

A study by Knowledge Networks in 2005 indicated there are 60 million active travelers vacationing specifically for outdoor activities, one-third of which are over the age of 45. The Outdoor Industry Association Foundation indicates that adults with similar demographic characteristics as those of the most active divers are predisposed to water-related activities on vacation. This predisposition appears to be related to their desire to observe the diversity of marine environments accessible first-hand only to divers and snorkelers, and helps explain the attraction of diving to the described adult population. In fact, some organizations use this environmental concern as a means of promoting diving and attracting new diving participants.

In conclusion of this point, divers and diving professionals, and all of those connected with the diving industry actively observe and protect the environment on which they depend for recreation, and for their livelihoods. Perhaps John J. Cronin, one of the founders of PADI said it best, "If divers do not take an active role in preserving the aquatic realm, who will?"

## **ECONOMIC IMPACT OF ACCESS TO HEALTHY DIVE SITES: THE ECONOMICS OF RECREATIONAL DIVING AND SNORKELING**

There are approximately 2.7 to 3.5 million active divers in the US alone, with estimates as high as 6 million worldwide. According to *Understanding the Potential Economic Impact of SCUBA Diving and Snorkeling: California (2006)*, Linwood H. Pendleton, Associate Professor, Environmental Science and Engineering Program at the University of California, Los Angeles, estimated that by 2010 there would be about 11 million snorkelers in the US. PADI estimates that there are some 20 million snorkelers worldwide.

Leeworthy and Wiley estimate that about 5.07% of the US population participates in snorkeling (approximately 11 million) and they participate at the rate of 92.5 million diver-days annually. Leeworthy and Wiley further estimate that 1.35% of the US population participates in scuba diving (about 2.79 million) at the rate of 22.8 million diver-days annually (See EXHIBIT F).

A 2006 DEMA study indicated that divers remain active in the sport for a long time. Studies indicate that divers have a participation "half-life" of about 5 years. That is, some five years after receiving their initial training and diver "certification," about 50% of the diver population will have discontinued their diving activity. Approximately 5 years later an additional 50% of the initial diver population will cease or reduce diving activities, and so on. In the US about 200,000 new divers are trained and certified each year.

Interestingly, many “divers” never actually become “certified.” A large number (by some estimates more than one million globally) participate in “try diving” experiences. These individuals are under the direct supervision of a diving professional, and though they never complete a certification course, they nonetheless participate in diving activities, many on living coral reefs in the ocean. They are therefore impacted by potential environmental degradation such as ocean acidification.

Recreational scuba divers and snorkelers contribute to US and international tourism revenue by purchasing dive trips, equipment and other diving-related items, and by spending on ancillary items such as hotels, food, fuel, air, water and ground transportation, and other items while traveling to local and distant dive destinations. Divers contribute to sales tax revenues for local counties, municipalities and states, and to federal and state tax revenues through the creation of diving tourism-related jobs.

Divers visit natural and artificial reefs, as well as other bodies of water to observe natural or man-made structures. Recreational diving is, therefore, possible under a variety of conditions and in a variety of locations. Most are attracted to clear warm water, and natural coral reefs and clean ocean environments play a key role in developing the “market value” of these diving experiences.

### **Natural Reefs: Trade and Industry Value Including Snorkeling and Scuba Diving**

Numerous individual economic studies have contributed to the economic picture of recreational diving and the value of natural reefs in terms of usage, tourism revenue, goods and services, and shoreline protection. Several of these are cited here.

#### Overall Reef Value

According to *Coral Reef Ecosystems Value: Enhancing Resilient Communities* presented during Capitol Hill Ocean Week, June 4, 2008, Billy D. Causey, Ph.D., Regional Director, Southeast Region, National Marine Sanctuaries (See EXHIBIT C-Florida Coral Reefs Recreational Use), natural coral reefs contribute some \$375 billion in goods and services annually to the world. Rodney V. Salm, PhD in his presentation, *Taking the Heat in Tropical Seas* (also for Capitol Hill Ocean Week, June 4, 2008) indicated that the average value of coral reefs was estimated to be about \$813,000/sq. mile for recreational use, food, jobs and other services combined.

A 2002 study of Hawaii estimated the value of that state’s coral reefs at \$364 million. It was noted in this same presentation that reefs provided shoreline protection that would otherwise cost an estimated \$400,000 to \$24 million/mile. In the Caribbean, shoreline protection provided by coral reefs is valued between \$0.7 billion and \$2.2 billion.

Clearly, natural reefs have a significant impact on local and state economies in the US as well as providing cost savings in terms of shoreline protection.

#### Value of Recreational Divers and Snorkelers Attracted to Natural Reefs

Recreational divers, snorkelers, fishers, and others are attracted by the presence and accessibility of coral reefs, making them a significant part of diving tourist and travel promotional strategies.

In the March 2003 *An Assessment of the Socio-Economic Impact of the Sinking of the HMS Scylla* the South West Regional Economy Centre at the University of Plymouth indicated that for

every 10,000 diver days, three full time equivalent (FTE) jobs were created, half of which were direct (associated directly with diving) and half of which were indirect (associated with hotels, restaurants and other tourist and service employers). This same study indicates a contribution to the GDP of approximately £669,000 (US\$1,027,800) for every 10,000 diver-days (See EXHIBIT E).

A 2000 report from the World Resources Institute indicates that coral reefs in the Caribbean alone contribute \$2.1 billion for dive-specific tourism. This same presentation recorded more than 8.80 million visitor-days in Florida annually by snorkelers and scuba divers. The annual direct economic value of coral reefs to world tourism is estimated at some \$9.6 billion.

A study of Martin County Florida published in 2004 indicates that snorkeling on Martin County reefs generates about \$465,000 in annual expenditures within the county, of which one-half are spent on boat, oil, and gas. Scuba diving on Martin County reefs generates about \$672,000 in annual expenditures within the county of which about one-half is spent on boat, oil, and gas. For all activities combined, the use of natural reefs generates \$6,886,000 in annual expenditures within the county. Total annual reef-related expenditures, including natural and artificial reefs, are estimated at \$12,000,000.

According to the *Socioeconomic Study of Reefs in Southeast Florida* (October 2001, Florida Fish and Wildlife Conservation Commission, National Oceanic and Atmospheric Administration, in association with Florida State University), reef-related expenditures generated over \$4.395 billion in sales in Palm Beach, Broward, Miami-Dade and Monroe Counties combined, during the 12-month period from June 2000 to May 2001. These sales resulted in generating \$2.047 billion in income to Palm Beach, Broward, Miami-Dade, and Monroe County residents during the same time period. During the same period, reef-related expenditures provided 71,300 full and part-time jobs in these four southeast Florida counties. Two-thirds of the economic contribution was associated with natural reef-related expenditures in Miami-Dade and Palm Beach Counties, seventy five percent of the economic contribution was associated with natural reefs in Monroe County, and about fifty percent was associated with natural reefs in Broward County (See EXHIBIT A – Economic Contribution of Reef-Related Expenditures in Four Florida Counties).

It should be clear that recreational diving and snorkeling contribute significantly to tourism-related businesses, in addition to the revenue contribution from diving activities derived directly by diving-related businesses. It should also be clear that recreational diving and snorkeling generate jobs in many different sectors, some of which are highly specialized, requiring extensive training.

## **ECONOMIC CONCERNS OF RECREATIONAL SCUBA DIVING AND SNORKELING REGARDING LOSS OF CORAL REEFS OR CORAL REEF ACCESS DUE TO OCEAN ACIDIFICATION**

The recreational diving industry is dependent on the availability of quality diving and snorkeling sites, and this economic dependency extends to hotels, restaurants, marinas and other businesses associated with coastal and coral reef diving activities.

As noted, it is estimated that three full time equivalent (FTE) jobs are created for every additional 10,000 diver-days. With approximately 115 million combined snorkeling and scuba

diver-days annually in the US alone, it is projected that such recreational diving activity, through direct and indirect contributions, delivers about \$11 billion to the US annual GDP (See EXHIBITS E and F) and creates more than 340,000 FTE jobs.

#### The Effects of Ocean Acidification and the Human Side of Coral Reef Loss

There are approximately 1,800 retail dive centers in the United States, most offering diving instruction, diving equipment sales and rental, providing clean filtered breathing air, and often selling dive travel (for a complete listing of retail dive store fronts, see [www.BeADiver.com](http://www.BeADiver.com)). There are more than 200 international destination DEMA members, many of which depend almost solely on healthy coral reefs to attract scuba divers and snorkelers.

These businesses are the “customer interface” for the diving industry. They are the conduit by which diving equipment manufacturers, training organizations, the media and travel access potential diving consumers. All of these (typically larger) businesses depend to some extent on the retail dive center or its Internet equivalent. Without retail stores and tourist diving destinations, the industry cannot easily reach customers and the scuba and snorkel diving industries suffer.

Many of these retail businesses are small or micro-businesses, most are independently owned and operated, and many are family operations, providing household income which puts children through school, buys homes, and feeds and clothes the entire family. These businesses are also job centers for specialized and highly trained professionals such as diving instructors, underwater photographers, biologists, aspiring writers, life-support service technicians, Coast Guard-licensed vessel captains, and a variety of others.

Undoubtedly, losing coral reefs due to ocean acidification, or losing access to coral reefs for any reason would be economically detrimental to the recreational scuba and snorkeling industries in the US and in every nation or territory that enjoys access to these natural wonders. Such loss would be devastating to members of the diving community and their families, and would place an economic burden on the coastal communities which depend on recreational diving and snorkeling for their livelihood.

## **RESEARCH AND POLICIES**

By investigating both the economic and environmental impacts of ocean acidification, the Congress is being appropriately cautious and prudent in their actions. The recreational scuba diving and snorkeling industries could be detrimentally impacted by regulatory policies that create more immediate cost or reduction of access when such policies may be unnecessary or overly burdensome. In times of economic downturn the recreational diving industries experience many of the same circumstances as do other small recreational businesses; reduced revenue, fewer new customers, and less overall participation. According to a recent CNBC article (*Survey: Pilates Exploding, Darts & Billiards Plummeting*, published Tuesday, 30 Mar 2010), this reduced participation is common to many other water-related activities, “Water sports are almost toxic. Since 2000, jet skiing (down 18.5 percent), scuba diving (36.7 percent) and water skiing (44.5 percent) have seen massive declines.”

To introduce regulation without the critical research input that this Congress is now sensibly seeking may adversely impact these industries during the first fragile part of the economic recovery. By understanding more about the economics of ocean acidification on the diving

industries, and on the families that participate in these businesses, it should be possible to balance the long term environmental needs of the oceans and reefs, with the more immediate concerns of those that help their customers enjoy the ocean environment.

Since its inception DEMA as an organization has worked for the betterment of the environmentally sensitive resources on which our industries depend, while balancing the needs of diving businesses, and encouraging diving consumers to further protect these resources. Our efforts to protect the ocean, create jobs and recruit additional stewards for oceans and coral reefs have been enhanced by programs such as our Ships 2 Reefs program, providing information to those who would create environmentally safe artificial reefs. Using retired ships, carefully submerged in appropriate locations, takes fishing and diving pressure off natural reefs and helps increase aquatic life populations. DEMA's efforts resulted in the Ships 2 Reefs legislation enacted in Florida in 2008. DEMA has also been privileged to advocate for the reauthorization of the National Marine Sanctuaries Act, and comment on establishment of Marine Life Protected Areas, as well as other efforts to protect the underwater environment. We openly offer our assistance in understanding the economics of these industries or in other ways that make the most sense to this Committee.

## **SUGGESTIONS FROM THE RECREATIONAL SCUBA AND SNORKELING INDUSTRIES**

DEMA applauds the Congress for their efforts and recognition that there is a need for additional economic and environmental investigation with regard to impacts of ocean acidification or other factors which might limit or prevent access to natural coral reefs. DEMA suggests that such economic and environmental investigations should:

1. include input from all user groups
2. provide for a clear balance between the long-term environmental health and of this critical resource and the immediate economic issues such as access limitations and regulations that impact the industry and the cost to participate in diving

## **THE DIVING INDUSTRY'S INTEREST IN CONTINUED PARTICIPATION IN THE ECONOMIC INVESTIGATION OF THE EFFECTS OF OCEAN ACIDIFICATION**

DEMA and the recreational scuba diving and snorkeling industries appreciate the opportunity to be included in this economic discussion regarding the effects of ocean acidification. As the trade association for the recreational diving industries, DEMA has a strong interest in additional and continuing opportunities to contribute suggestions and ideas with regard to policy considerations and related activities.

## **CONCLUSION**

In closing, DEMA strongly supports the economic and environmental investigation of the effects of ocean acidification on coral reefs being undertaken by this Committee. The recreational scuba diving and snorkeling industries can continue to be a formidable instrument in this Committee's toolbox for discovering, reporting, studying and evaluating the impact of ocean acidification by providing first-hand information in areas such as coral reefs status, fish counts and other observable areas. DEMA willingly offers its assistance in these areas and looks forward to working with Congress to ensure that there remains a balance of consideration between the

immediate economic issues and the long term health of the critical coral reef and ocean resources.

Thank you for the opportunity to offer my thoughts on how the diving industry could be economically impacted by ocean acidification.

## EXHIBITS

### EXHIBIT A – Economic Contribution of Reef-Related Expenditures in Four Southeast Florida Counties

Economic Contribution of Reef-Related Expenditures to Each County  
June 2000 to May 2001 – Residents and Visitors

Type of Economic Contribution	Palm Beach County	Broward County	Miami-Dade County	Monroe County
Sales – All Reefs (in millions of 2000 dollars)	\$505	\$2,069	\$1,297	\$490
Artificial Reefs	\$148	\$961	\$419	\$127
Natural Reefs	\$357	\$1,108	\$878	\$363
Income – All Reefs (in millions of 2000 dollars)	\$194	\$1,049	\$614	\$139
Artificial Reefs	\$52	\$502	\$195	\$33
Natural Reefs	\$142	\$547	\$419	\$106
Employment – All Reefs (number of full- and part-time jobs)	6,300	36,000	19,000	10,000
Artificial Reefs	1,800	17,000	6,000	2,000
Natural Reefs	4,500	19,000	13,000	8,000

Source: *Socioeconomic Study of Reefs in Southeast Florida*, Johns, Leeworthy, Bell, Bonn

### EXHIBIT B – Top 10 Adventure Activities of Adult Travelers

#### Top 10 Adventure Activities on the “Most Adventurous Trip” for adults age 41 to 59:

1. Hiking/backpacking/rock and mountain climbing
2. Escorted or guided tour
3. Snorkeling
4. Camping (tent)
5. Fresh or saltwater fishing
6. Horseback riding (tied for 6th)
6. Biking (tied for 6th)
7. Whitewater rafting/kayaking
8. Sailing
9. RV camping
10. Scuba diving

Source: *2005 Travel Survey*, Knowledge Networks

### EXHIBIT C – Florida Coral Reefs Recreational Use

Recreational Use of Coral Reefs in Florida	
Snorkeling	4.24 million visitor days
Scuba Diving	4.56 million visitor days
Fishing	9.72 million visitor days
Glass-bottom Boats	0.12 million visitor days
<b>TOTAL</b>	<b>18.64 million visitor days</b>

Ref: Dr. Vernon R. Leeworthy, Chief Economist, Office of National Marine Sanctuaries

**EXHIBIT D - Recreational value of coral reefs in Hawaii in 2001 (US dollars)**

	Consumer Surplus	Value Added of Direct Expenditure	Value Added of Indirect Expenditure	Multiplier Effect	Total Value Added
<i><b>Snorkelers</b></i>					
Residents	10,053,899	2,318,704	-	579,676	12,952,279
US West	47,833,826	20,882,055	23,136,504	11,004,640	102,857,025
US East	33,174,006	14,482,250	20,450,444	8,733,174	76,839,874
Japan	13,340,508	5,823,854	2,189,058	2,003,228	23,356,648
Canada	5,236,964	2,286,218	3,587,133	1,468,338	12,578,653
Europe	3,809,326	1,662,977	2,246,766	977,436	8,696,505
Other	11,782,791	5,143,826	6,794,101	2,984,482	26,705,200
<i><b>Subtotal</b></i>	<i><b>125,231,322</b></i>	<i><b>52,599,883</b></i>	<i><b>58,404,007</b></i>	<i><b>27,750,973</b></i>	<i><b>263,986,183</b></i>
<i><b>Scuba Divers</b></i>					
Residents	3,450,231	5,137,088	-	1,284,272	9,871,591
US West	1,588,179	3,152,878	3,545,777	1,674,664	9,961,498
US East	1,101,444	2,186,603	3,134,126	1,330,182	7,752,355
Japan	1,255,768	2,492,969	2,710,742	1,300,928	7,760,407
Canada	173,878	345,185	549,745	223,733	1,292,541
Europe	126,477	251,085	344,327	148,853	870,742
Other	391,212	776,641	1,041,228	454,467	2,663,548
<i><b>Subtotal</b></i>	<i><b>8,087,190</b></i>	<i><b>14,342,448</b></i>	<i><b>11,325,946</b></i>	<i><b>6,417,099</b></i>	<i><b>40,172,682</b></i>
<i><b>Total Recreational Value</b></i>					
Residents	13,504,130	7,455,792	-	1,863,948	22,823,870
US West	49,422,006	24,034,932	26,682,281	12,679,303	112,818,522
US East	34,275,450	16,668,853	23,584,570	10,063,356	84,592,229
Japan	14,596,276	8,316,823	4,899,800	3,304,156	31,117,055
Canada	5,410,842	2,631,403	4,136,878	1,692,070	13,871,193
Europe	3,935,804	1,914,062	2,591,094	1,126,289	9,567,249
Other	12,174,003	5,920,467	7,835,329	3,438,949	29,368,748
<i><b>Total</b></i>	<i><b>133,318,511</b></i>	<i><b>66,942,331</b></i>	<i><b>69,729,953</b></i>	<i><b>34,168,071</b></i>	<i><b>304,158,866</b></i>

***Multiplier effect:*** The total economic contribution of the reefs of Hawaii includes the contribution of reef expenditures to sales, income and employment. Expenditures by visitors generate income and jobs within industries that supply reef-related goods and services, such as charter/party boat operations, restaurants and hotels. These industries are called direct industries. In addition the visitor expenditures create multiplier effects wherein additional income and employment is created as the income earned by the reef related industries and their employees, is re-spent in the local economy. These additional effects of reef-related expenditures are called indirect and induced. Indirect effects are generated as the reef-related industries purchase goods and services from other industries locally. Induced effects are created when the employees of the direct and indirect spend their money locally.

### EXHIBIT E - The Impact of Scylla on the South West Economy with Projected US GDP

The Impact of Scylla on the South West Economy					
Extra Diver Days					US Diver-Days 115,300,000
	2500	5000	7500	10000	
<b>Employment (FTE)</b>					
Direct	3.9	7.7	11.6	15.5	
Indirect	3.5	7.1	10.6	14.2	
<b>Total</b>	<b>7.4</b>	<b>14.8</b>	<b>22.2</b>	<b>29.7</b>	<b>Projected US Employment (FTE) 342,441</b>
<b>GDP (£)</b>					
Direct	66,060	132,120	198,180	264,240	
Indirect	101,275	202,551	303,826	405,102	
<b>Total</b>	<b>167,335</b>	<b>334,671</b>	<b>502,006</b>	<b>669,342</b>	
<b>TOTAL Contribution to GDP</b>					<b>Projected US GDP Contribution (Direct and Indirect) US\$ 11,856,415,621.34</b>

### EXHIBIT F – Participation in SCUBA and Snorkeling Recreation (2000)

	Participation Rate (%)*	Number of Participants (millions)*	Number of Days (millions) ***
<b>United States</b>			
Snorkeling	5.07	10.46	92.5
Scuba Diving	1.35	2.79	22.8
<b>California</b>			
Snorkeling	0.34	0.71	3.818
Scuba Diving	0.14	0.29	1.383

From Leeworthy and Wiley (2001), \*Percent of the US population that participated in the activity, \*\*Number of participants is equal to the participation rate multiplied by the non-institutionalized population 16-years or older in all households in the US as of September 1999, \*\*\*The number of days the respondents participated in each activity over a year. Note figures from top to bottom of table differ due to the use of different base population levels in each report