

# ANNUAL REPORT

2011



UNIVERSITY  
OF MIAMI

R.J. DUNLAP MARINE  
CONSERVATION PROGRAM



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# OVERVIEW

This document is a report summarizing the achievements and progress of the R.J. Dunlap Marine Conservation Program at the University of Miami in 2011.

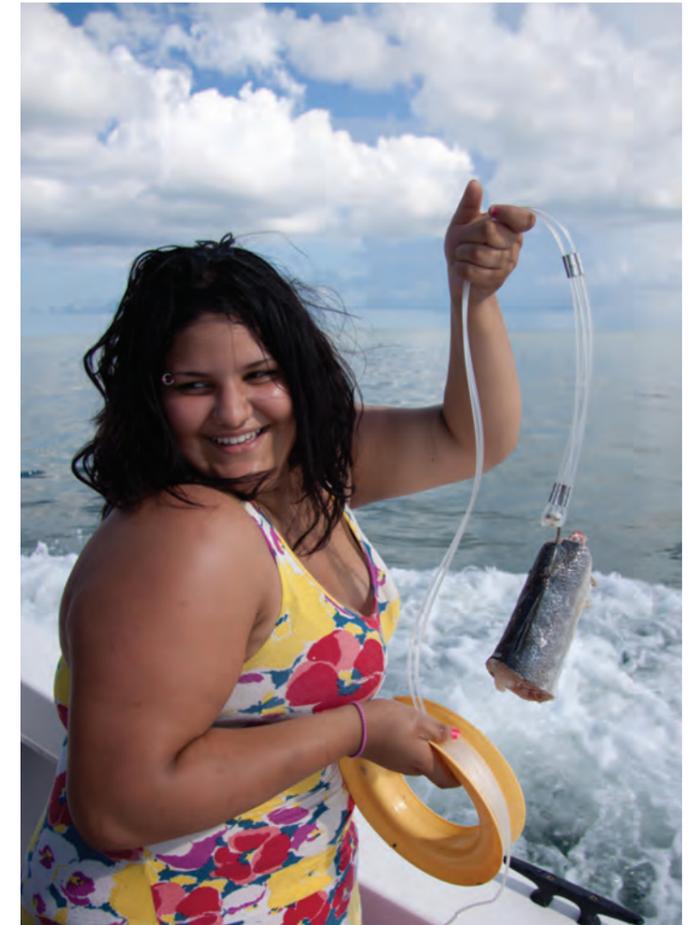
Included in this report are the Program's objectives, activities and results that were generated with your support. We hope that we can count on your support in 2012.



The mission of the R.J. Dunlap Marine Conservation Program (RJD) is to advance STEM (Science, Technology, Engineering and Math) literacy and marine conservation by combining cutting edge research and outreach activities.

The R.J. Dunlap Marine Conservation Program (RJD) is a joint initiative of the Rosenstiel School of Marine & Atmospheric Science and the Leonard and Jayne Abess Center for Ecosystem Science and Policy at the University of Miami. RJD research continues to generate critical information for implementing ocean conservation strategies. Providing unique opportunities for high school, undergraduate and graduate students to participate in exciting, hands-on field experiences makes RJD a recognized leader in marine science education. At the State, National and Global level, the Program exposes students and teachers to the importance

of oceans in their daily lives through virtual expeditions, online high school curriculum, webinars and online workshops. The goals of these field and online projects are to teach students about the threats facing our water and adjacent coasts and to engage students in exploring solutions for conservation. RJD is also expanding to include more independent projects for undergraduate and graduate students. Educational opportunities are especially made available for those in land-locked communities as well as those in traditionally under-served populations (gender, disability, race, poverty). This is achieved by directly soliciting schools from across the nation and targeting high school groups with these demographics. Over the past four years, we have provided thousands of students with real in-field research experiences and continue to reach tens of thousands of people every month through our online interactive website (<http://www.rjd.miami.edu>). The over-arching theme of our cutting edge research and innovative outreach activities focuses on determining the impacts of and solutions to the negative anthropogenic effects on marine ecosystem function.



1

Advance marine conservation through cutting edge science and education projects

2

Increase student acquisition of STEM skills, especially related to marine ecology

3

Encourage the development of marine conservation awareness, attitudes, and behaviors in youth and the general public

# RESEARCH

The RJD Research Team is investigating 11 primary research topics. Strong collaborative efforts are being made across the disciplines to better understand how our world's oceans work in even their most complex processes and interactions.

## SATELLITE TRACKING OF THREATENED SHARKS

Using custom-designed satellite tags, we are investigating the movements of threatened shark species in the subtropical Atlantic. By identifying 'hot spots' for mating, feeding, and pupping, we can supply policy makers with the data needed to implement the most effective management strategies.



Project Lead: *Dr. N Hammerschlag*  
Current Investigators & Contributors: *A Gallagher, J Wester, DM Lazarre, Dr. D Rumbold, B Wasno, Dr. J Sulikowski, Dr. J Luo, Dr. JS Ault, Capt. C Slonim*

## TRACKING BACTERIAL LOADS IN COASTAL WATERS

Water can serve as a vehicle by which diseases are transmitted in the environment. The objective of this research project is to document the quality of water in Biscayne Bay and to examine spatial and temporal fluctuations in bacterial (enterococci) pollution. By locating the potential contaminant sources, strategic measure can be taken to remove or remediate these sources, thereby improving water quality and ecosystem health.

Project Lead: *Dr. H Solo-Gabriele, L Vogel, K Morrisroe* / Current Investigators & Contributors: *Dr. N Hammerschlag*

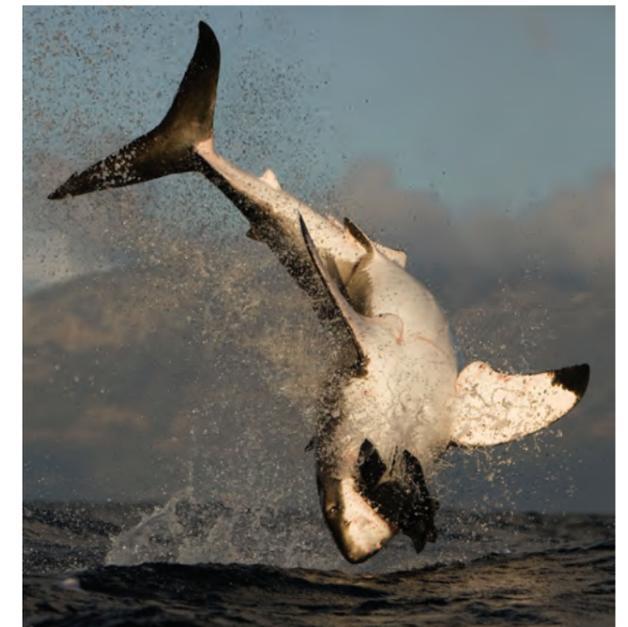
## FISH STRESS PHYSIOLOGY & POST-RELEASE SURVIVAL FROM ANGLING

The sustainability of catch-and-release fishing relies upon the major assumption that all caught individuals will survive and recover when released. While this assumption may be studied and proven true for many game fish, our study seeks to investigate its validity for sharks. Using blood, reflex and telemetry, we are working to create shark fishing best practice recommendations for the recreational and commercial fishing sectors.

Project Lead: *A Gallagher, Dr. N Hammerschlag*  
Current Investigators & Contributors: *Dr. S Cooke, Capt. C Slonim*



## PREDATORY BEHAVIOR OF WHITE SHARKS



Wintertime in False Bay, South Africa is known for its awe-inspiring white shark acrobatics during predatory attacks on juvenile Cape fur seals. Success rates in these ambush attacks are high, averaging 48%, but soaring up to 80% for specific skilled individuals. Dr. Hammerschlag investigates the physics, characteristics, patterns, and locations of these attacks.

Project Leads: *Dr. N Hammerschlag, RA Martin, C Fallows*  
Current Investigators & Contributors: *M Fallows, R Lawrence, A Barren, Dr. K Rossmo*

# RESEARCH

## FOOD-RISK TRADE-OFFS IN MANGROVE & CORAL REEF FISHES



When fish move out into the open to feed, they are putting themselves at a higher risk for predation. This project will examine the food-risk trade-off in mangrove and coral reef fishes by conducting an integrated set of quantitative field studies, such as baited underwater video surveillance. We are particularly interested in evaluating how their behavior changes along mangrove-seagrass and coral reef-seagrass gradients.

Project Lead: *Dr. N Hammerschlag, P Wallingford, D Shiffman*  
Current Investigators & Contributors: *R Kraemer, Dr. J Serafy*

## ATLANTIC SAILFISH: MIGRATION AND GROWTH

RJD has joined forces with The Billfish Foundation (TBF) to develop a billfish tagging program for high school students that will educate, invigorate, create conservation-minded anglers, and ultimately provide research opportunities. TBF's Tag and Release Program is the largest private tagging program in the world and utilizes conventional tags to track billfish migrations, estimate growth rates, and evaluate socioeconomic factors related to sportfishing.



Project Lead: *P Chaibongsai, A Cox*  
Current Investigators & Contributors: *A DiGiulian*



## ECOLOGICAL RISK ASSESSMENT OF THREATENED SHARKS

Ecological risk assessments (ERA) are employed to quantify and predict the vulnerability of a particular species, stock, or population to a specific stressor (e.g. pollution, harvesting, climate change, bycatch). We are generating models that will effectively triage species that deserve the most attention for conservation. This work has already identified certain species that may be heavily at risk, such as the great hammerhead.

Project Lead: *A Gallagher, Dr. N Hammerschlag* / Current Investigators & Contributors: *Dr. P Kyne*

## CASCADING ECOSYSTEM IMPACTS OF OVERFISHING

With 1.3 – 1.7 million tonnes of sharks and rays killed each year, ocean ecosystems are experiencing cascading effects. To investigate these effects, we are conducting a series of integrated field and laboratory studies including field surveys, stable isotope analysis, genetic analysis, and blood hormone analysis. This work will provide new insights for predicting how both predators and prey are likely to respond to anthropogenic ecosystem changes and for developing effective conservation and management strategies.

Project Lead: *Dr. N Hammerschlag, D Shiffman*  
Current Investigators & Contributors: *A Gallagher, C O'Connell, Dr. J Sulikowski, Dr. L. Kaufman*

# RESEARCH



## BIOMAGNIFICATION OF TOXINS IN MARINE & COASTAL FOOD WEBS

This work is focused on understanding how toxins such as mercury and BMAA – linked to serious neurodegenerative diseases such as ALS, Parkinson's and Alzheimer's Disease – biomagnify up the marine food chain. Natural levels of mercury and BMAA may be magnified by a warming climate. In collaboration with researchers at RSMAS, the UM Medical School and BRI, we are collecting and analyzing specimens from important marine species from South Florida marine and coastal ecosystems for detection and quantification of mercury and BMAA neurotoxins, using state-of-the-art analytical methods. Data generated from sampled marine species in South Florida are aimed at determining the source, mechanisms and solution for the spread of these toxins through aquatic food chains and ultimately humans.

Project Lead: *Dr. D Evers, Dr. N Hammerschlag, T Divoll, AG Matulik*

Current Investigators & Contributors: *Dr. D Mash, Dr. K Mondo, Dr. L Brand*

## BULL SHARK DISTRIBUTION & BEHAVIOR IN S. AFRICA

Despite being considered a species of regional conservation concern, little is known about the ecology and behavior of bull sharks in southern Africa. In a first step to improving scientific understanding of this species, this study will examine bull shark distribution and movement patterns in southern Africa using acoustic and satellite tracking techniques. Additional lines of inquiry include habitat identification, investigation of ecological role, quantification of the trophic structure, and development of a conservation management plan.

Project Lead: *ME McCord, Dr. SJ Lamberth, Dr. S Kerwath, C da Silva*  
Current Investigators & Contributors: *Dr. N Hammerschlag*

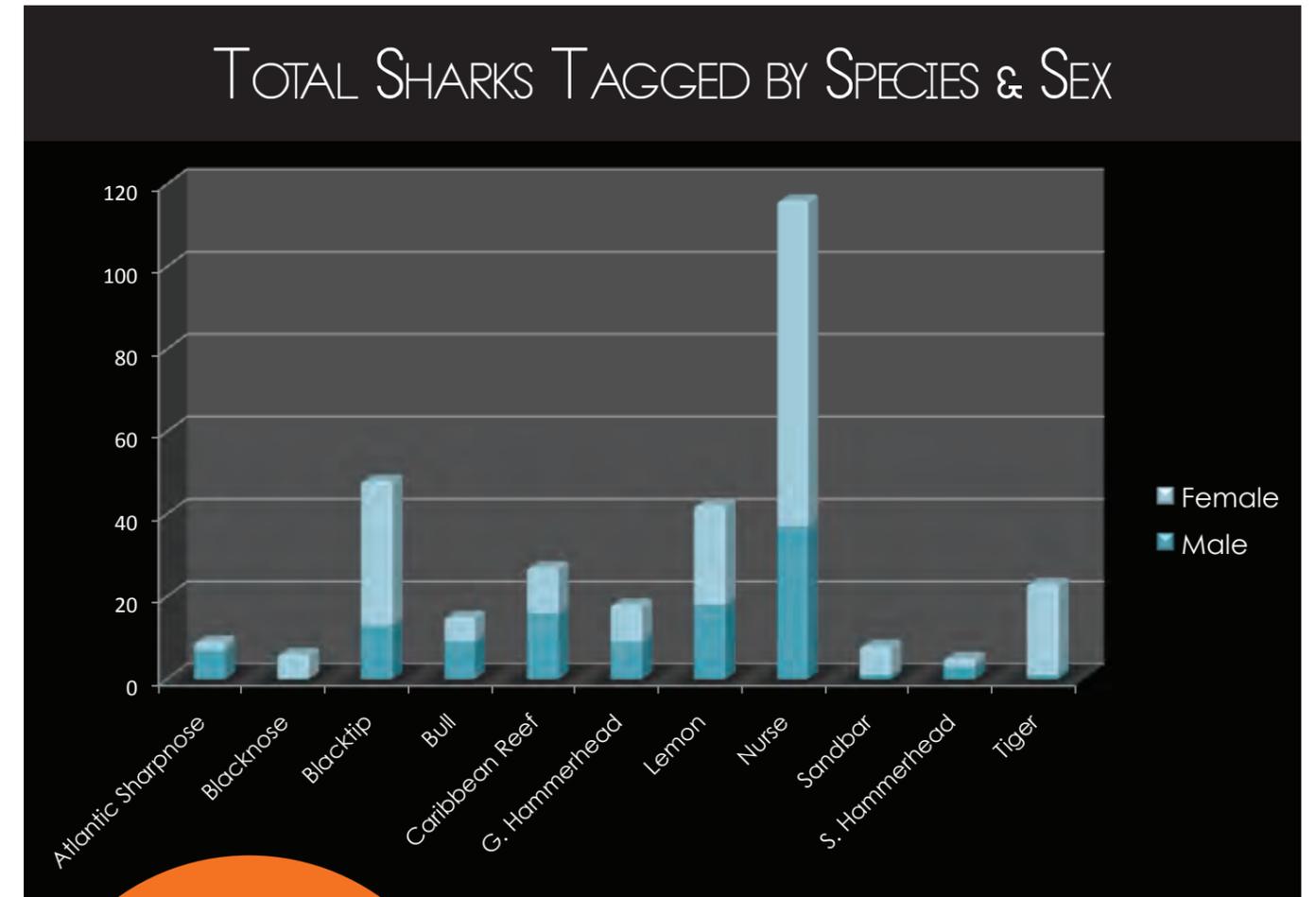
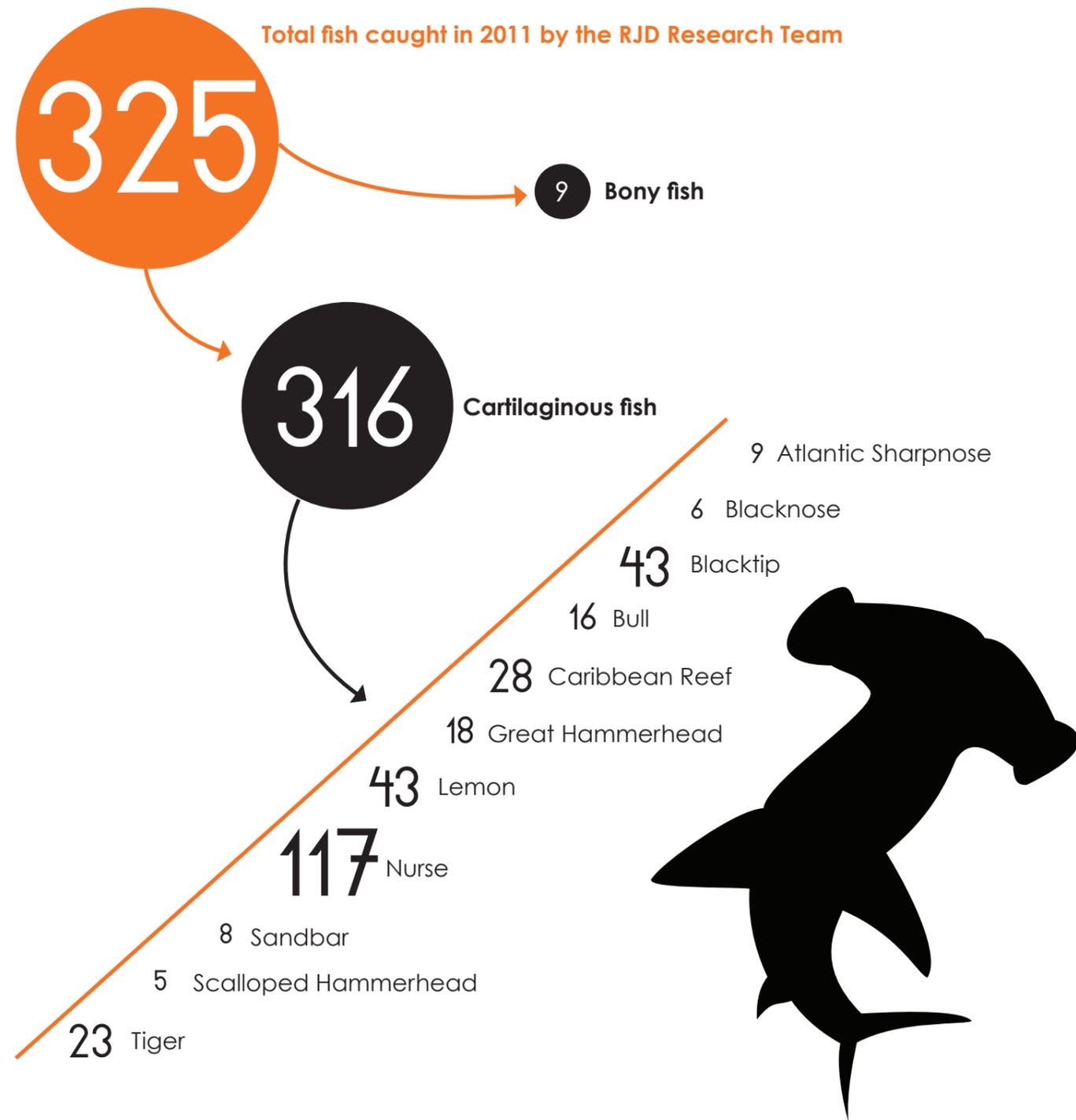


## MARINE CONSERVATION OUTREACH AS MEDIATED BY CULTURE AND PSYCHOLOGY

We are conducting a case study of the development and evaluation of our innovative marine conservation outreach program that focuses on field experiences for high school age students, particularly from under served populations in S. Florida, S. Africa, and the Bahamas. Utilizing participant observation, attitude surveys, and psychophysiological measurements of anxiety, the over arching goal is to determine the effectiveness of experiential education approaches and how accounting for social, cultural, and psychological factors may enhance broader outreach efforts. The findings from these studies will shed light on the social perception of sharks in different cultures as well as the impact of culture, context, and psychophysiology on environmental education and attitude development.

Project Lead: *J Wester, Dr. N Hammerschlag, Dr. K Broad*

# RESEARCH



**WHAT'S THE CATCH?**

# RESEARCH

## SCIENTIFIC PUBLICATIONS

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Gallagher AJ, Jackson T, Hammerschlag N. 2011. Evidence of tiger shark (*Galeocerdo cuvier*) foraging on avian prey in the subtropical Atlantic. *Florida Scientist*, 74(4): 264-269

Fallows C, Martin RA, Hammerschlag N. In Press. Comparisons between white shark-pinniped interactions at Seal Island (South Africa) with other sites in California (United States). In: *Global Perspectives on the Biology and Life History of the Great White Shark*, ed. Michael L. Domeier, CRC Press, Boca Raton, FL.

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Staaterman ER, Clark CW, Gallagher AJ, deVries, MS, Claverie T, Patek SN. 2011. Rumbling in the benthos: the acoustic behavior of the California mantis shrimp and the presence anthropogenic noise. *Aquatic Biology*, 13:97-105

Hammerschlag N, Sulikowski J. 2011. Killing for Conservation: The Need for Alternatives to Lethal Sampling of Apex Predatory Sharks. *Endangered Species Research* 14: 135-140

Gallagher AJ, Hammerschlag N. 2011. Global Shark Currency: The Distribution, Frequency and Economic Value of Shark Eco-tourism. *Current Issues in Tourism*, 4(8): 797-812.

Hammerschlag N, Gallagher AJ, Lazarre DM. 2011. A Review of Shark Satellite Tagging Studies. *Journal of Experimental Marine Biology and Ecology*; 398(1-2): 1-8.

Hammerschlag N, Gallagher AJ, Lazarre DM, Slonim C. 2011. Range extension of the endangered great hammerhead shark *Sphyrna mokarran* in the Northwest Atlantic: Preliminary data and significance for conservation; *Endangered Species Research*, 13: 111-116.

Serrano X, Grosell M, Serafy JE. 2011. Osmoregulatory capabilities of the gray snapper, *Lutjanus griseus*: salinity challenges and field observations. *Marine and Freshwater Behaviour and Physiology*



### GLOBAL SHARK CURRENCY: THE DISTRIBUTION, FREQUENCY AND ECONOMIC VALUE OF SHARK ECOTOURISM

Ecotourism represents a highly popularised activity which has exhibited global growth in recent years. In the present paper, we examine the distribution, frequency, and economic value of shark-based ecotourism operations worldwide. A total of 376 shark ecotour operations across 83 locations and 8 geographic regions were identified. Here we describe the global and regional scope of the industry; determine the species utilised in shark ecotourism activities; and examine the recreational usage values of sharks. Further, we conducted a case study of a shark tourism operation based in South Africa by analysing 12 years of demographical and economical data, revealing increasing trends in the total number of customers served and cost per trip over the sampling period. We also compare consumptive and non-consumptive values of shark resources and discuss the potential research and conservation implications of the industry to sharks worldwide.

# EDUCATION

The RJ Dunlap Marine Conservation Program has developed a variety of online resources to educate and engage people of all ages, experience, and interest. These amazing resources allow people from all over the world to take part in marine conservation.

## Free High School Curriculum

The RJ Dunlap Program and the Deering Estate at Cutler have teamed up to create an interactive, educational and exciting curriculum for teachers and students. The Marine Conservation Science & Policy curriculum teaches students about the threats facing our waters and adjacent coasts, while exploring solutions for conservation.

WHERE  
IN THE  
WORLD!?

## Follow Our Sharks

RJD uses near real-time satellite tag technology to track sharks worldwide. You can follow them as well by using Google Earth.

## Webinars

RJD provides free seminars, podcasts, and documentaries for anyone interested in learning more about our fragile marine resources.



## Virtual Expedition

An action-packed, interactive educational tagging experience from the comfort of your home, classroom, or office.

**Virtual Expedition** | Checklist | Departure & Deployment | Tagging & Research | Photography | Shark Species

**An action-packed tagging education for shark conservation.**  
In the past 50 years, 80% of all large sharks have disappeared. At this rate, extinction of the top oceanic predators is imminent... Unless we decide to save them.

**1 EQUIPMENT CHECKLIST**  
Now before our departure, help us check our equipment! Learn what gear we bring and why.

**2** **3** **4** **5**

**VIRTUAL EXPEDITION** GET INVOLVED

**PARTICIPATE**  
Continuous learning from home by *tracking the sharks*. Or learn how you can *get involved* with our projects.

**ADOPT A SHARK**  
Give a little extra TLC to these amazing creatures. Learn how you can *adopt your own shark*.

**CONTRIBUTE**  
Support our cutting-edge, interdisciplinary marine research. Learn how you can *donate to RJD*.

**SUPPORT OUR PROGRAMS**

**RJ DUNLAP MARINE CONSERVATION PROGRAM MIAMI**

Webdesign by *Emasidesign*

# EDUCATION

Middle school, high school and university level students gain unique, hands-on research field experience through participation in the RJ Dunlap Program. With students working side-by-side with world renowned marine biologists, we hope to inspire careers in the STEM (Science, Technology, Engineering, Mathematics) fields. Additionally, these young adults leave the experience feeling empowered, confident, and excited about marine conservation.

## PARTICIPATING

Abess Center for Ecosystem Science and Policy -  
University of Miami, Coral Gables, FL

Archimedian Upper Conservatory Charter School,  
Miami, FL

Driftwood Middle School, Hollywood, FL

Florida Gulf Coast University, Fort Myers, FL

Island Christian School, Islamorada, FL

Our Lady of Lourdes Academy, FL

Maritime and Science Technology Magnet  
Academy High School, Key Biscayne, FL

Miami Dade College, Miami, FL

Palmer Trinity High School, Palmetto  
Bay, FL

Rosenstiel School of Marine  
and Atmospheric Science, Key  
Biscayne, FL

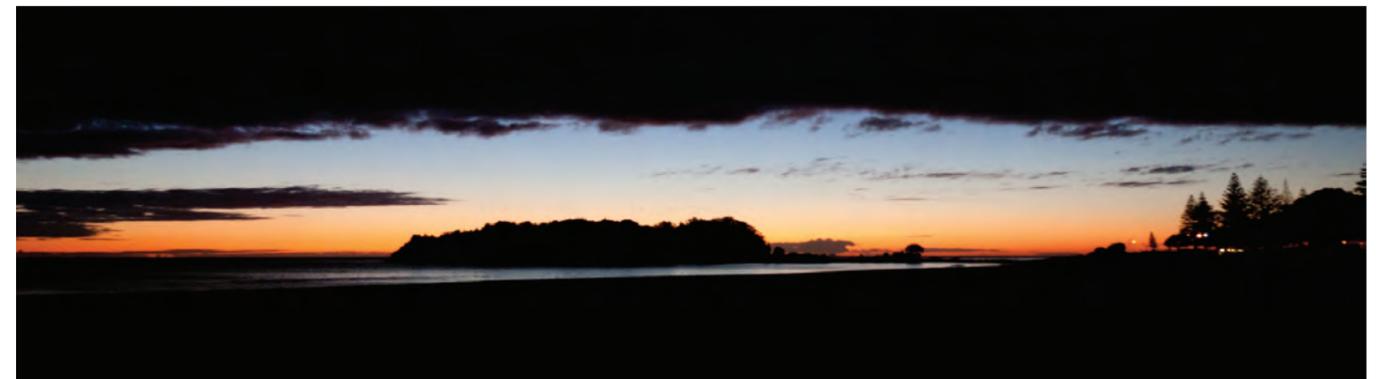
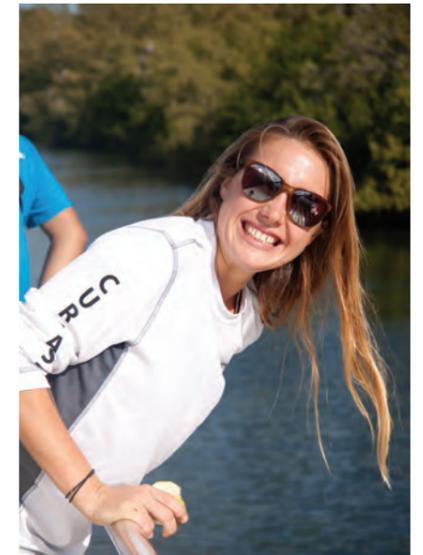
South Broward High School,  
Hollywood, FL

St. Thomas Aquinas High School,  
Fort Lauderdale, FL

University of Miami, Coral Gables, FL

University of Colorado, CO

## INSTITUTIONS



# EDUCATION

“Things you wouldn’t get inside a typical high school class are brought to our interest, in the most extraordinary way.”

Vilma Sooknanan,  
South Broward HS



“ RJD does an incredible job of reaching out and exciting the community about shark research. When groups go out on the boat to tag sharks it is amazing the response we get from them towards the sharks. Groups of all ages and backgrounds come out on the boat, and every time people seem to change their attitude towards sharks. It seems that after learning a little more and having contact with the sharks, some sort of magic happens that gets everyone excited and on the sharks’ side in the conservation effort.”

Evan Byrnes, UMiami Undergraduate Student & Shark Intern

“ Certain experiences in life always stay embedded in our minds, and attending the shark trips with RJD will always be mine.”

Kimberly Mitchell  
South Broward HS



# OUTREACH



## DETAILED SUMMARY OF PARTICIPANTS

33

states  
outside of  
Florida were  
represented.

913

individuals  
participated in RJD  
Shark trips during  
the 2011 season.

40

countries  
outside of the  
United States of  
America were  
represented.

4

universities were  
represented among the  
RJD Internship Program at  
the University of Miami.

7

high schools participated in the  
RJD research field experience.

14

students and 1 faculty member of Our Lady of Lourdes Academy participated. It is a "Catholic school, therefore, is concerned with imparting knowledge in an atmosphere in which spiritual values are acknowledged. We recognize that a personal understanding of duties to country and neighbor is an essential part of education. We believe that these duties are effectively discharged only when each individual understands that the person, the community, and the environment are all part of an interlocking relationship with God. The overall objective of our curriculum is to inculcate good habits of learning, to promote physical fitness, to train the senses and the memory, to stimulate the imagination and to foster the application of logical solutions to problems. Extra-curricular activities encourage the development of leadership, service, creativity and sportsmanship."

49

students and 4 faculty members participated from MAST Academy. MAST is the only maritime and science technology magnet high school in the Miami-Dade County Public School system. MAST has over 500 students in grades 9-12. The MAST Academy offers a unique and rigorous marine-theme curriculum and superb facilities with access to the local Biscayne Bay ecosystem. The small size of the school, low student-teacher ratio, and parent, community and corporate involvement contribute to the success of the MAST Academy as an educational institution. The student body of MAST Academy is 48% Hispanic, 24% White, 17% Black, 5% Asian, and 6% other/multi-racial.

18

students and 2 faculty members participated from Saint Thomas Aquinas, "a four-year, college-preparatory, secondary school, which educates young men and women in the Catholic tradition of youth formation. Respectful of each person's self-worth, we seek to develop each student's God-given talents in a safe atmosphere of caring, sharing, and challenge through a varied program of educational offerings, religious experiences, athletic programs, social and cultural opportunities, and service. The entire program focuses on the individual student, made in the image and likeness of God, who receives attention, acknowledgement, and challenge."

# OUTREACH

23

students, 3 faculty, and 2 staff members participated from Palmer Trinity School. Palmer Trinity's students, over 50% of whom are bilingual come from 37 countries. Students represent Episcopal, other Protestant Christian, Roman Catholic, Jewish, Islamic, and Hindu faiths. As an Episcopal school, Palmer Trinity welcomes students and families of all faiths, and promotes an affirming, inclusive atmosphere. Palmer Trinity's dedication to excellence spans all facets of school life.

13

students and 2 faculty members of Island Christian School participated, with the school's mission being "to [serve] the educational, physical, and spiritual needs of the community." Currently the student population is 213 with 21% being of color.

15

students and 2 faculty members joined from the Archimedian Upper Conservatory School. The school's vision is to offer a rigorous, balanced, and nurturing education of the highest possible quality in an effort to prepare students for successful passage all the way through to the best graduate programs in the world and develop life-long learners capable of sound critical thinking. The Archimedian Upper Conservatory was founded in 2008. The school consists of k-8 grade levels. The school has 102 students, broken down into 4% Asian, 79% Hispanic, and 16% White, non-Hispanic students.

40

students and 5 faculty members were from South Broward High School. South Broward High School is a maritime magnet school with a student population of approximately 2,300 and is ethnically diverse with over 60% eligible for free/reduced lunch. The socioeconomic backgrounds range from poverty to upper middle class. This school offers an assortment of maritime curricula as well as a full range of athletics, clubs and organizations designed to engage the students. Their high school students are a highly trained resource for the maritime community. They dive on reefs, count sharks and design their own Geographic Information System (GIS) maps back at school as Service Learning projects. They also build Remotely Operated underwater Vehicles (ROV) equipped with cameras and robotic arms. They use them to study the coral reef, explore historic shipwrecks and inspect mega yacht hulls from local marinas. In return for their unique experiences, these ocean ambassadors personally visit elementary school classrooms (or video conference), providing them with hands-on lessons about coral reef ecology and apex predators. As of 2011, the total student enrollment was 2726. The ethnic makeup of the school was 47% White, 20% Black, 25% Hispanic, 2% Asian or Pacific Islander, 3% Multiracial, and 2% Native American or Native Alaskan.

98

**youth participated from non-profit higher education programs, such as AMIkids Miami-Dade, Branches, City Year, Miami Museum of Science IMPACT, and Upward Bound.**

AMIkids, is an alternative based program for adjudicated youth referred through the Department of Juvenile Justice. Through the program, they hope that all will find "hope, excitement, discovery, promise and success."

The Branches program wants the participants to learn to give and participate in a service project each month. They feel that "it is important to teach the value of serving and then to practice it."

"City Year unites young people of all backgrounds for a year of full-time service, giving them the skills and opportunities to change the world. These diverse young leaders help turn around high-need schools and get students back on track to graduation. Teams of full-time corps members help improve student attendance, behavior and course performance – which research confirms are indicators of a student's likelihood of graduating from high school. As near-peers who begin their service before the first bell rings and stay until the last child leaves the after-school program, corps members are uniquely able to help students and schools succeed."

The Miami Museum of Science Upward Bound IMPACT program provide fundamental support to participants in their preparation for college entrance. The program provides opportunities for participants to succeed in their precollege performance and ultimately in their higher education pursuits. Upward Bound serves high school students from low-income families and high school students from families in which neither parent holds a bachelor's degree. The goal of Upward Bound is to increase the rate at which participants complete secondary education and enroll in and graduate from institutions of postsecondary education.

# OUTREACH



22

**organizations and agencies have continued to participate and work in cooperation toward conservation and higher education.**

The Consortium for Ocean Leadership  
 CRED  
 Department of Environmental Resources Management  
 Deering Estate Foundation  
 Experiences International  
 Florida Fish and Wildlife Conservation Commission  
 Global Virtual Classroom  
 National Marine Fisheries Services  
 National Ocean and Atmospheric Association  
 National Ocean Sciences Bowl  
 National Park Service  
 National Science Foundation Program Decision Making Under Uncertainty  
 Oceana  
 Pew Environment Group  
 PV  
 Save the Blue  
 Shark Safe Network  
 Summit Series  
 The Earth Institute  
 The Institute for Social and Economic Research and Policy  
 The Nature Conservancy  
 The Wilderness Society  
 Think Inc.

Blumberg Capital  
 Clarium Capital Management LLC  
 Global Village Concerns  
 Greenworks  
 Herokin  
 Inktel Direct  
 Lamna Applied

Latitude within Denmark  
 Morgan Stanley  
 Prana Yoga PV  
 Sciedoesuschezen  
 Semantinet  
 TOMS  
 Wells Fargo

15

**corporations had representatives participate in RJD field research trips.**

*Commissioner Ray Sudah along with the Abess, Begelwa, Bromenshenkel, Davidson, Geiger, LeShaw, Liataud, Oleson, and Slonim families participated. Participating individuals included Joel Altman, Phil Bayes, Moise Chevez, Thomas Ermacora, John Guarino, Imogen Heap, Jane Kim, Lindsey Matulions, Phil Mitchaht, Stephen Riemer, and Eugene Roddenberry.*

6

**auctions were held allowing these individuals to gain the opportunity to participate.**

Sergio Akselrad  
 Antonia Alcoser  
 Reese and Rod Bell  
 Josh Fogel  
 Michelle Vazquez

17

**media sources not only covered stories on the Program but also participated.**

333 Productions  
 Animal Planet  
 CNN  
 Forbes  
 FOX News  
 History Channel  
 Lewis P Wilkinson  
 Mark Rackley Productions  
 Miami Herald  
 Muy Interesante  
 New Times  
 Oceanicallstars  
 Poder Magazine/Green Forum  
 Washington Post  
 Jeffrey Saltr  
 Popular Mechanics  
 StyledOn  
 Valeo Films Inc.

# 2011 HIGHLIGHTS

## SUMMIT SERIES AT SEA

On April 10, 2011, the University of Miami's R.J. Dunlap Program teamed up with Summit Series for a day of action-packed shark tagging. Artists, actors, journalists, entrepreneurs, and many more brought both imagination and open hearts to see how they could help do their part in saving sharks. Dr. Neil Hammerschlag led the expedition, involving over 60 people from Summit Series in the research experience.

A few exciting updates: Summit Series at Sea finished its year-long ocean conservation campaign, raising \$800,000 for a Bahamian marine reserve. TOMS Shoes will be releasing a shark shoe line to benefit RJD. Actress Kristen Bell has shared her experiences on the Tonight Show with Jay Leno. Bamboo Sushi now offers an ecotour trip on its desert menu to shark tag with RJD.



O MAGAZINE  
'SEA STAR'

Shark conservation reached an unlikely demographic this Fall when Oprah Winfrey's O Magazine published an article highlighting the R.J. Dunlap Program's Multimedia Specialist Christine Shepard. The article not only educated readers about declining shark populations but also inspired young women to pursue careers in marine conservation.



## RJD FUNDRAISER – SOUTH FLORIDA PREMIERE OF 'THIS IS YOUR OCEAN: SHARKS'

On October 13, 2011, many of the world's leading shark experts and advocates gathered at the University of Miami for the South Florida premiere of *This is Your Ocean: Sharks*. Created by Emmy award-winning producer George C. Schellenger, artists Wyland and Guy Harvey, and underwater cinematographer Jim Abernethy, this documentary brings light to the plights of sharks worldwide. In a special fundraising effort, Guy Harvey and Oceana's Young Ocean Hero Sophi Bromenshenkel teamed up for a collaborative painting. The seascape, entitled 'Free Pass,' sold for \$7,500 to benefit the RJD Program.

# MEDIA

WPLG  
 WSVN  
 Key Biscayne Channel 16  
 Underwater Channel  
 PBS  
 Sun Sentinel  
 Coast Angler Magazine  
 LA Times  
 Seattle Times  
 Smithsonian Magazine Blog  
 Decoded Science  
 Palm Beach Post  
 Oprah Magazine  
 Forbes  
 Discovery News  
 Huffington Post  
 Time  
 MSNBC  
 National Geographic Daily News  
 333 Productions  
 Animal Planet  
 CNN  
 Forbes  
 FOX News  
 History Channel  
 Lewis P Wilkinson  
 Mark Rackley Productions  
 Miami Herald  
 Muy Interesante  
 New Times  
 Oceanicallstars



TRIPBASE  
 2011 BEST  
 CONSERVATION  
 BLOG

MASHABLE.  
 COM  
 RJD Social Media =  
 leader in using Facebook  
 as an online classroom

Poder Magazine / Green Forum  
 Washington Post  
 Jeffrey Saltr  
 Popular Mechanics  
 StyledOn  
 Valeo Films Inc.  
 Mashable.com



SPOTLIGHT on SEJ Conference 2011 - On October 20, 2011, participants from the Society of Environmental Journalists Conference joined the RJD research team in Key Largo, FL for a hands-on education of local marine ecosystems and their apex predators. These inspired journalists went on to publish articles through each of their respective networks, such as Forbes, The Washington Post, Popular Science, and The Guardian. We thank all the esteemed members of the press for their continued support and coverage.



# SUPPORT

The RJ Dunlap Marine Conservation Program at the University of Miami is indebted to the support of its partners and sponsors.

Established through a founding donation from Marian Dunlap in honor of her husband, the late Richard J. Dunlap, who was an avid fisherman and environmentalist, the program is providing exciting opportunities for students to advance ocean conservation through hands on projects. A variety of exceptional organizations, companies and private donors are lending their support to this unique program. We truly appreciate all of their generosity and foresight.

## SPONSORS

Marian Dunlap  
The Rosenstiel School of Marine & Atmospheric Science, UMiami  
The Leonard and Jayne Abess Center for Ecosystem Science and Policy, UMiami  
Batchelor Foundation, Inc.  
Disney Wildlife Conservation Fund  
Wells Fargo  
Guy Harvey Ocean Foundation  
Shark Foundation  
University of Miami Citizens Board  
Fernandez Pave the Way Foundation  
Key Biscayne Rotary Club  
Miami Science Museum  
Roddenberry Foundation  
SeaStar Foundation  
Global Village Concerns



Our work is supported through a growing number of outstanding partnerships and collaborations with:

## PARTNERS

National Geographic Society  
Loggerhead Marine Life Center  
Bonefish & Tarpon Trust  
The BioDiversity Research Institute  
Cooperative Unit for Fisheries Education and Research, RSMAS  
Mote Marine Laboratory  
Biscayne National Park  
Everglades National Park  
Florida Gulf Coast University  
Deering Estate at Cutler  
West Coast Inland Navigation District  
The Nature Conservancy  
Pew Environment Group  
Bahamas National Trust  
PropSpeed USA  
Desert Star Systems  
Summit Series



# CREDITS

WORDS

LEANN  
WINN

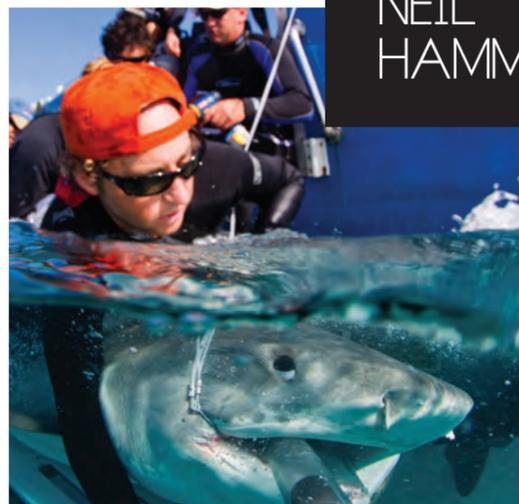


PHOTO  
+  
DESIGN

CHRISTINE  
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LAURA  
BRACKEN



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