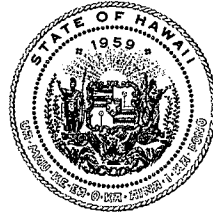


LINDA LINGLE
GOVERNOR OF HAWAII



**STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES**

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

**Testimony of
LAURA H. THIELEN
Chairperson**

**Before the Senate Committee on
JUDICIARY AND GOVERNMENT OPERATIONS**

**Thursday, April 02, 2009
10:15 AM
State Capitol, Conference Room 016**

**In consideration of
House Bill 366, House Draft 2, Senate Draft 1
RELATING TO MANTA RAYS**

House Bill 366, House Draft 2, Senate Draft 1 would prohibit the take of manta rays in State waters, and impose fines for violations. The Department of Land and Natural Resources (Department) appreciates the intent of this measure, but believes it to be duplicative of efforts already underway via the administrative rule process, and therefore considers the measure unnecessary.

The Department is aware of both the role of manta rays as charismatic marine megafauna of value to the reef-based tourism industry, and of their potential vulnerability to unregulated harvest. The Department is therefore addressing the protection of manta rays and other marine species of special concern through promulgation of a rule that would contain a list of no-take marine species afforded protection from harvest except by permit under special circumstances. This effort, which involves the potential protection of all sharks and rays in Hawaiian waters (along with many other species of concern) is already discussed and endorsed by the West Hawaii Fisheries Council for the West Hawaii area.

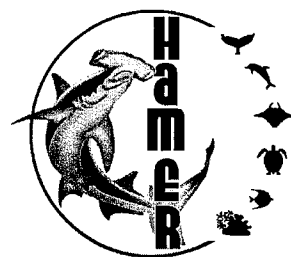
In summary, Department supports the protection of manta rays, and intends to bring forth a proposed administrative rule to this effect in the immediate future.

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS



Testimony in Support of HB366 to Protect Manta Rays in Hawaii

March 31, 2009

Attn: Hawaii Senate Judiciary Committee

Dear members of the Judiciary Committee,

As the director of the Hawaii Association for Marine Education and Research, Inc., and University of Hawaii Ph.D. candidate studying manta rays in Maui for the past 5 years, I am asking you to support HB366 to protect manta rays in Hawaii. I hope the following information will stress the urgency of passing this bill, and will address any concerns that you may have.

Are Manta Rays Threatened?

- 1) The International Union for Conservation of Nature (IUCN), the world's main authority on the risk of extinction to a species, classifies manta rays as near threatened, meaning a species that may be threatened with extinction in the near future.
- 2) Small, island-resident populations exist in Hawaii. Two populations that have been studied by University of Hawaii doctoral students include The Big Island with less than 150 manta rays, and Maui County with about 300 manta rays.
- 3) It takes a female 10 years to reach sexual maturity and she only has a single pup every 2-3 years. This means that populations grow very slowly and can be negatively impacted by the removal of just a few individuals.
- 4) There is a demand for manta rays in East Asia for their gill rakers, and for their fins to be used in shark fin soup. This demand has led to the decimation of manta rays in places

like South China, Philippines, Indonesia, and Mexico.

- 5) **Currently, aquariums on the mainland and internationally are preparing to extract manta rays from Hawaii for public display.** Aquariums in the U.S. have been unable to keep manta rays alive in captivity for longer than a few months.

How are manta rays currently protected in Hawaii?

- 1) Currently no laws in Hawaii protect manta rays from being captured or killed.
- 2) Under current laws, any person with short-term financial motives and the proper equipment, could visit any of the manta ray aggregation areas in Hawaii and remove/kill as many manta rays as they wanted. Since manta rays often aggregate in numbers of 20 or more, moving slowly near the surface at the same shallow water locations every day, one could easily kill one quarter of the population in a matter of days. **One could eliminate the entire population in a matter of months.**

What about collecting manta rays for educational and research purposes?

- 1) Any person with legitimate research or educational objectives that would contribute to the long-term protection and preservation of manta rays would be allowed to apply for a special “take” permit (exception SD1), allowing the removal of a manta ray from its natural environment **as long as this number does not exceed the potential biological removal (PBR)**. Due to these small, slow-growing populations, determining PBR is essential to ensure the sustainable management of manta rays extracted from the population. This permit process makes the permit holder accountable to insure that the goals of the research are met.

What about letting DLNR manage this species under the Administrative Rule Process?

- 1) In 2006, House Resolution 30 was passed requiring DLNR to take action for manta protection within one year. To date, no progress has been made.
- 2) Members of the DLNR have clearly expressed on many occasions that although they agree that manta rays should be protected, they are simply too overwhelmed with other work to dedicate any time to manta rays.

Why should we care about manta rays in Hawaii?

- 1) Manta rays are Hawaii’s largest marine resident. With wingspans reaching over 12-ft across, they are found in our near shore waters all year-round.
- 2) They are a valuable source of revenue for the state of Hawaii. The manta ray dive industry in Kona alone brings in 2.5 million dollars annually.
- 3) Hawaii is one of a handful of places in the world where one can reliably see manta rays in their natural habitat attracting millions of visitors to the state each year.
- 4) Our children and grandchildren should also have the opportunity to experience these majestic animals in their natural habitat.

HB366 would insure that the people of Hawaii could continue to benefit from the long-term, sustainable, economic value of Hawaii’s manta rays. This law would insure that visitors continue to flock to one of a handful of places in the world where they can reliably see manta

rays in the wild. This law would insure that our children and grandchildren have the opportunity to experience these majestic animals in their natural habitat.

Sincerely,

A handwritten signature in black ink, appearing to read "Deakos". The signature is fluid and cursive, with a large initial "D" and "E" that are connected.

Mark H. Deakos

Director of The Hawaii Association for Marine Education and Research, Inc.
Member of the Maui Nui Marine Resource Council
Ph.D. Student, University of Hawaii at Manoa
Marine Biologist

Testimony of Keller Laros, founder of the Manta Pacific Research Foundation
April 2, 2009

Aloha and thank you for allowing me to testify and endorse H.R.366, HD2, SD1.
I want to introduce myself, describe my experience and explain why I support manta ray protection in the State of Hawaii. Along with the current amendments.

My name is Keller Laros. I live in Kailua-Kona, Hawaii. I made my first scuba dive in Hawaii in 1984. I made my first manta ray dive in 1985. Since 1985 I have been a PADI Scuba Instructor. In 1993 I authored and began teaching a PADI sanctioned class called Manta Ray Diver. To date I have 8,286 logged scuba dives. During my scuba career I have logged dives in Hawaii, California, Washington, Mexico, US Virgin Islands, British Virgin Islands, British West Indies, Republic of Palau, and Midway Atoll. I have been cited and or interviewed in books, magazine articles, television programs and internet broadcasts about diving and marine ecology. I have issued more than 750 scuba certifications to all levels as well as 196 Manta Ray Diver certifications. I am the founder of the Manta Pacific Research Foundation, a 501c3 non-profit dedicated to the conservation and study of manta rays. I am a husband and father of three children ages 5, 9 and 12 years.

Manta Rays Need Legal Protection

- Σ **Manta Rays are rare and unique creatures.**
- Σ **HD366, HD2, SD1, Establishes protocol for stewardship of Manta Rays in Hawaii.**
- Σ **HD366, HD2 SD1, Requires no funding.**
- Σ **Legal protection is required to protect and manage this valuable resource.**
- Σ **Slow reproduction. One pup per litter. Late reproductive age. Long gestation.**
- Σ **Do not migrate in Hawaii and have limited natural predators.**
- Σ **Fisheries in Mexico, Indonesia and Philippines. New markets emerging.**
- Σ **Manta Ray now legally protected in Yap, Mexico and other locations.**
- Σ **No fishery in Hawaii.**
- Σ **Manta rays vulnerable to exploitation.**
- Σ **Eco-tourism attraction. In 2007 over 30,000 visitors. 3 million dollars.**
- Σ **Eco-tourism growing. Does not deplete resource. Renewable. Green.**
- Σ **Hawaii is top manta ray destination in the world.**
- Σ **Manta Rays in aquariums popular in Okinawa, Osaka, Georgia, Atlantis & Dubai.**
- Σ **New demand creates new industry to capture live manta rays. Big Money.**
- Σ **Captured manta rays have high mortality rate.**
- Σ **More than 5,600 signatures on petition for manta protection.**
- Σ **Unanimous support for manta protection by West Hawaii Fishery Council in 2004.**
- Σ **House Bill 960 never got out of committee in 2005.**
- Σ **House Resolution 30 passed committee and directed DLNR to act in 2006. No results.**
- Σ **Administrative protection sought in 2007 and 2008. No results.**
- Σ **House Bill 366, HD2, SD1 will protect manta rays.**
- Σ **House Bill 366 passed House on March 10, 2009**

Dear Hawaii Legislature: I would like to express my support for protection of manta rays in Hawaii. I am a marine biologist with extensive work experience in the Pacific and an academic background at the University of Hawaii.

Protection of manta rays should begin immediately for the reasons listed below:

- * There is currently no protection for manta rays from any type of fishing, collection, or capture in Hawaii.

- * Kona is one of the best locations around the world to see manta rays in the wild. Manta rays are observed on 80% of the dives at Garden Eel Cove each year.

- * Manta ray ecotourism generated over 2.5 million dollars per year in revenue for the state of Hawaii in 1992. The increase in tourism over the last seven years suggests even more is generated today. This depends on a healthy population of live manta rays in Hawaii.

- * Individuals can be identified by their unique spot patterns on their belly. These pigment patterns have allowed residents to name and keep track of individuals, and has shown that many are long-time residents at certain sites.

- * Manta rays are very long lived. One individual (Lefty) has been a resident in Kona since before 1979, when she was first identified as a full grown adult female.

- * Only 154 manta rays have been identified along the Kona Coast since 1992, suggesting very small population sizes.

- * No individual has ever been documented migrating between Kona and Maui, despite two separate photo-identification studies and two acoustic tracking studies. This suggests that each island has its own distinct population, and overfishing on one island will not be alleviated by migration of new individuals from another island.

- * Manta rays have extremely low reproductive rates. Only 2-3 new pups are observed in Kona each year. It would take a long time for captured manta rays to be replaced by natural reproduction.

- * Manta rays do not have to be in aquarium for researchers to learn more about them. Hawaii is a perfect location for researchers to study manta rays in the wild.

- * There is no reason we should allow our local manta rays to be sold to generate income for outside parties. They are worth much more to Hawaii alive and swimming in our local waters than dead or stuck in a tank on the mainland.

Thank you for your consideration.

Lance Smith
1708 Wilhelmina Rise
Honolulu, HI 96816
(808) 221-8297



Foundation for the Protection of Marine Megafauna

March 15th, 2009

To Whom It May Concern:

As an American and a researcher studying manta rays full time, I find myself compelled to address the concern of their protection and conservation in the Hawaiian Islands.

Manta rays are by their very nature a vulnerable species to exploitation. Their reproductive parameters alone make them a candidate for immediate concern and protection. Manta rays are a reproductively conservative species, they reach maturity at a large size and late age, they typically have only a single offspring every two to three years in the wild, and they characteristically have small population sizes.

As the senior author for the most recent IUCN Redlist assessment on this species, the available scientific information clearly indicates that manta rays are vulnerable to extinction in areas where their natural mortality is altered or influenced by man. Most often threats to this species come in the form of fishing pressure, with animals being targeted for consumption and trade. However manta ray populations also face other threats such as unregulated eco-tourism industries, critical habitat degradation and global warming.

For all of the above reasons, manta rays should not be targeted for consumption, trade, sport fishing, or scientific experimentation. If we are to reverse current trends and build more comprehensive management and conservation programs for them at major aggregation sites, we must firstly enforce this primary and vital step.

I fully support and stand behind efforts to protect manta rays in Hawaiian waters.

A handwritten signature in black ink, appearing to read "Andrea Marshall".

Dr. Andrea Marshall

Director of Research

Foundation for the Protection of Marine Megafauna

Foundation for the Protection of Marine Megafauna
Manta Ray & Whale Shark Research Center-- Tofo Beach, Inhambane, Mozambique
Casa Barry Landline (Moz): +258 29329007 E-mail: andrea@giantfish.org
Africa- Mobile (Mozambique): +258 84 730 1190 Mobile (South Africa): +27 82 478 9251



31st January 2009

To Whom It May Concern,

My name is Guy Stevens and I am the founder of the Maldivian Manta Ray Project; a non-profit research, conservation and education organization established in 2006 to study all aspects of the manta ray population here in the Republic of Maldives. The Maldives has a thriving resident population of many thousands of mantas which generate US\$10 Million to the country's economy through direct revenue from dive and snorkel excursions each year. The Maldivian government realize the value of their natural heritage and have created laws which prohibit the export of any rays from the country. I therefore strongly support any government bill which would create greater protection for the manta rays of Hawaii at the earliest possible time.

Manta rays are amazing animals which captivate and enthrall divers and snorkelers all over the world wherever they are encountered. The small population which exists within Hawaii is a huge asset to the State, one which it should be proud to have, and endeavour to protect. Not only is passing this bill the right thing to do ethically, it is also the right thing to do economically. Any fisheries or live capture of mantas for the aquarium trade from Hawaii's manta population would only result in the short-lived profits for a few individuals. Whereas the annual financial benefit for protecting the mantas in Hawaii will continue to exceed several million dollars.

Yours Truly

Guy Stevens
Maldivian Manta Ray Project
Landaa Giraavaru
Baa Atoll
Republic of Maldives
www.maldivianmantas.com



Ocean Tourism Coalition

The Voice for Hawaii's Ocean Tourism Industry
820 Mililani Street, #810
(808) 537-4308 Phone (808) 533-2739 Fax
office@oceantourism.org

April 2, 2009

Testimony To: Senate Committee on Judiciary and Government Operations
Senator Brian Taniguchi, Chair

Presented By: Tim Lyons, CAE
Executive Director

Subject: H.B. 366, HD 2, SD 1 – RELATING TO MANTA RAYS

Chair Taniguchi and Members of the Committee:

I am Tim Lyons, Executive Director of the Ocean Tourism Coalition and we support this bill.

We have long been an advocate of preserving the natural ocean environment as it exists or as we can enhance it. The manta rays are clearly part of that picture and we believe that the seizure, capture, or killing of manta rays should be penalized.

Based on the above, we support this bill.

Thank you.



RESEARCH FOUNDATION
Research • Education • Conservation

P.O. Box 3227
Kailua-Kona, HI
96745-3227

info@mantapacific.org
www.mantapacific.org
808.325.1630

To: Senate Judiciary and Government Operations Committee
Senator Brian Taniguchi, Chair and,
Senator Dwight Takamine, Vice-Chair

Re: HB366 pertaining to manta rays

From: Jan McLaughlin,
Director and Co-Founder of Manta Pacific Research Foundation (MPRF)

I would like to take this opportunity to **support** HB366 making it unlawful to knowingly capture or kill a manta ray within state marine waters. I also want to Thank all of the House and Senate Legislators who have worked behind the scenes to give this Bill an opportunity for review – without it, this Bill would not have reached the JGO Committee.

As one of the Founders of MPRF, perhaps my support of the Bill is obvious. However as someone intimately involved with the status of manta rays worldwide, I know what their threats are and know that protecting them is of paramount importance. Also, as someone who has worked on the ocean in the past, taking people diving and snorkeling with these great creatures, I know their greatest impact is on people. Having taken many people out into the dark black waters of the night, held their hand, and showed them a very up close and personal look at one of the great underwater creatures, I also know first hand their immediate emotional connection to the ocean and wanting to care for all it's creatures. I have heard directly from so many people, that their manta experience was one of their more cherished experiences of their lives and they have become champions of ocean preservation. **I believe that broader ocean stewardship is one of the most important outcomes from manta preservation.**

In 2002, MPRF conducted a survey of the Kona Dive and Snorkel Operators to determine the economic impact of the manta night dive on the local economy. At that time, the mantas brought in approximately \$2.5 million dollars in direct revenue to the operators. As a Director of MPRF, I have recently finished the 2007 survey and our preliminary results show that this number has certainly increased, perhaps by 20% or more. There is no question that the value of a manta ray continues to increase and provides jobs and money to the local economy and is thereby recycled into the whole community. Our statistics show that there is an 80% chance of seeing a manta ray in Kona on the dive and this very high number brings in tourists, year round, from all over the world to experience it first hand. Kona is probably the only place in the world where snorkeling with mantas is a viable option making the potential audience even greater and not just limited to scuba divers. Seeing people of all ages and physical capabilities, overcome their primal fears and jump in the black water to snorkel with manta rays, is one of the most rewarding experiences for me, and certainly for those who have participated. Their complete enthusiasm for the experience continues when they get home and the cycle continues. I have seen this myself, many times.

While it is true that there are no known plans to start a manta ray fishery, it is clear to me personally that should one start up, they would be such an easy take that the population would suffer losses that they would unlikely be able to return from. You have probably seen the



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research giving their long life spans, low reproductive levels, and the lack of replenishment from other areas. If fishing were to start, there would be no possible way to protect them fast enough to make a difference. We currently have many different levels of protection for many of our large ocean animals (charismatic megafauna) that inhabit the Hawaiian waters, and mantas are one of the last unprotected ones. I believe now is the time for manta ray protection as we continue on the road to protecting the oceans beauty and inhabitants in general, but it is only a step on the continual path.

The aquarium trade in Hawaii has been a long and contentious one in the legislative halls and I'm sure you are more aware of this than I. It's my belief that the Hawaii manta rays are available for all to see and experience in the ocean. With the increased technology available to researchers, and with MPRF's help, we have shown that Hawaii manta rays, if studied in their own environment, can benefit the world's population of manta rays. At the manta ray summit in Montreal this past July, we heard mixed results from organizations that had manta rays held in tanks. As an individual, it was clear to me that researchers learned very little more from tank watching than I did from watching them in the ocean. Hawaii is blessed with a consistent, small population of manta rays that has not yet even begun to be studied in situ. We could learn so much from watching them in their natural environment, especially with the latest technological advancements, that capturing for tank viewing seems frankly, inconsequential. I encourage you to consider stopping the aquarium trade before it starts in this case and protecting manta rays from being captured or killed for any reason.

I am very excited that the recent amendments will give manta rays the same level of protection and scientific scrutiny as that given to species in the Marine Mammal Protection Act. I look forward to watching the needed continued research into these animals, and the exciting results it will no doubt provide.

Please give mantas protection in Hawaii as soon as possible.

Sincerely,

Jan McLaughlin
Director and Co-Founder
Manta Pacific Research Foundation

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:59 PM
To: JGO Testimony
Cc: sisrou@yaho.co.uk
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Simon Srour
Organization: Individual
Address:
Phone:
E-mail: sisrou@yaho.co.uk
Submitted on: 3/31/2009

Comments:

Greaction at news on the Manta Ray protection bill. I whole-heartedly support this action and hope it's one of many like it around the world. My respect for Hawaii just went way up. Why can't more follow this lead? My holiday money will always go to a country with a positive, pro-active policy on ecology and conservation.

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:58 PM
To: JGO Testimony
Cc: julesb425@aol.com
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Julia Hutchings
Organization: Individual
Address:
Phone:
E-mail: julesb425@aol.com
Submitted on: 3/31/2009

Comments:
To whom it may concern,

I am writing to express my deepest concern regarding the protection of manta rays in Hawaii. I would like to urge the senate to pass the bill to protect these magnificent creatures. Thank you for your time,

Julia Hutchings
425 Macon Ave
Romeoville, Il.
60446

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:57 PM
To: JGO Testimony
Cc: barrington9@telus.net
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Barry Clark
Organization: Individual
Address:
Phone:
E-mail: barrington9@telus.net
Submitted on: 3/31/2009

Comments:

I completely support a bill to protect the mantas in Hawaii, and congratulate the Hawaii state legislature for recommending the passage of this bill.

A.R.Clark, M.D.,
1461 24th St,
West Vancouver, B.C.,
Canada, V7V 4H4

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:55 PM
To: JGO Testimony
Cc: salsaorange@yahoo.com
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Josiane Dalcourt
Organization: Individual
Address:
Phone:
E-mail: salsaorange@yahoo.com
Submitted on: 3/31/2009

Comments:

To whom it may concern (which is the whole world!!),

it is SO important to protect the giant manta rays from fishing wether it is for Chinese medecine or to display in aquariums.
PLEASE protect these beautiful giants of the sea in Hawaian waters! More divers will go on visit and dive in hawaii to see them!!
THANK YOU for your heart for the ocean!!
josiane dalcourt

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:54 PM
To: JGO Testimony
Cc: scubawess@earthlink.net
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Wesley Tester
Organization: Individual
Address:
Phone:
E-mail: scubawess@earthlink.net
Submitted on: 3/31/2009

Comments:

Hawaii is one of few locations in the world where manta rays can be observed regularly in the wild, however, there is currently no protection for these manta rays in state waters. Manta rays around the world are being killed for usage in traditional Asian medicines, while studies in Hawaii have shown that the populations have limited migration between islands and extremely low reproductive rates. Only 154 individuals have been identified in Kona since 1992, and the species is extremely susceptible to overfishing.

Two bills, HB366 and SB394, have been introduced in the Hawaii State House and Senate this year to prohibit the capture or killing of manta rays. Both must survive numerous committee hearings before they can be passed into law, and Hawaii's manta lovers are begging support for these beautiful animals.

Please support HB366 and SB394.

Thanks for your time and consideration in this matter of extreme biological need.

Wesley Tester

4093 Diamond Ruby, Ste #7

PMB 233

Christiansted, VI 00820

606-923-3104

To whom it may concern,

I am writing this letter to support the HB366 for manta ray protection in Hawaii.

The observation of these animals living in the wild generates millions of dollars in income through tourism. In spite of this great attention, published data can hardly be found on these animals in scientific journals.

I spent more years studying the neurobiology of several shark and ray species, -including Mobulids-, as well as studying the behavior of *Manta birostris* and *Mobula mobular*.

As I state in my recently published paper, Mobulids have some characteristic features in the astroglial system of their brain which resembles to that found in mammals (Ari and Kálmán, 2008). They also possess very high brain weight/ body weight ratio, large telencephalon and complex, highly convoluted cerebellum.

My recent behavioral experiments on a *Manta birostris* also showed some interesting, but preliminary findings on their developed sensory and learning abilities (Ari and Correia, 2008).

With these studies many interesting questions arised concerning the brain structure and the cognitive abilities of devil rays, which should be answered in the near future.

Future research should be directed to find correlation between the enlarged brain parts of Mobulids and their function by conducting comparative neuroanatomical studies as well as behavioral studies on wild specimens.

To learn more about the cognitive and sensory abilities of these creatures it is essential to ensure the maintenance of their natural behavior by keeping their populations intact.

Sincerely yours,
Dr. Csilla Ari

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:51 PM
To: JGO Testimony
Cc: snv@hawaiiantel.net
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Sandra Bailey and Victor Holmes
Organization: Individual
Address:
Phone:
E-mail: snv@hawaiiantel.net
Submitted on: 3/31/2009

Comments:

In my experience in the ocean, I have found the Manta Rays to be an intelligent, beautiful animal that we should be protecting and not killing for bait or for consumption. I also don't believe they should be taken for aquariums, as they do not live long (if at all) in captivity.

Thanks for listening,
Sandra Bailey
Victor Holmes
Makawao, Hawaii

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:50 PM
To: JGO Testimony
Cc: nonidolphin@yahoo.com
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Leona Roberts
Organization: Individual
Address:
Phone:
E-mail: nonidolphin@yahoo.com
Submitted on: 3/31/2009

Comments:

HB366

I spend a lot of time in the ocean, (10 to 20 hours per week, about 42 weeks a year). During the last half a century, I've seen the waters around our Islands go from plentiful to barren in comparison to what it was like back then. I optimistically estimate the total current population of 90% of Hawaiian species of fish, including pelagic and reef species around the Big Island, versus 1959 to be less than 1/250,000th of what it once was. If you ever gazed into the waters of the old Kailua-Kona pier or Kawaihae Harbor back in those days, you'll know I'm not exaggerating. I have very fond childhood memories of the boat harbors and beaches around Big Island being filled with seemingly-endless schools of countless, tiny, silver fish and below them, schools and schools of colorful reef fish. I've seen all of the various species diminish, some considerably more than others. Many species seemed to have disappeared completely from our shorelines. Mantas and other rays are no longer plentiful. Manta Rays can live a long time, but have very few offspring. It appears that the aquarium industry and collectors may be one of the main reasons why pups are rarely seen through adulthood. Protection for Manta Rays in Hawaii is desperately needed before it's too late. Please don't delay. Please begin protecting mantas as soon as possible by approving bill HB366.
Thank you.
Leona N Roberts

Senate Judiciary and Government Operations Committee

I am writing in support of HB 366 and amendment 187A-6 to legally protect manta rays in Hawaiian waters. Hawaii's healthy population of manta rays is one of the reasons that make the coastal waters unique and a destination for divers and ocean enthusiasts. Data on the life history and movement rate of this local population indicate that they would be highly susceptible to over fishing. This bill and amendment is a sound way to offer protection to this species and allows for education and scientific research regulated by local management authorities.

As a researcher of marine fishes and PhD candidate at the University of Hawaii, Manoa I fully support this House and Senate Bill. I hope that your committee will support HB 366.

Sincerely,

Kelly S. Boyle
Department of Zoology
University of Hawaii
2538 McCarthy Mall, Edmondson 152
Honolulu, HI 96822

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:44 PM
To: JGO Testimony
Cc: kauaidionne@hotmail.com
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Douglas Miller
Organization: Individual
Address:
Phone:
E-mail: kauaidionne@hotmail.com
Submitted on: 3/31/2009

Comments:

The manta rays need our protection from senseless slaughter, capture for display, and experimentation. They are benevolent and intelligent creatures that deserve to be left alone and just be.

From: Douglas Miller
Po Box 574
Lihue HI 96766

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:43 PM
To: JGO Testimony
Cc: kauaidionne@hotmail.com
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Dionne Miller
Organization: Individual
Address:
Phone:
E-mail: kauaidionne@hotmail.com
Submitted on: 3/31/2009

Comments:

I have been a Hawaii resident for 20 years. Seeing a Manta Ray in the water has been one of the highlights of my time in Hawaii. They are truly beautiful creatures that must be protected from predation and capture for any reason. The Manta Ray that I saw had beautiful eyes that looked right at me as it swam around me. I support Manta Ray protection.

Dionne Miller
Po Box 574
Lihue, HI 96766
808-634-4338

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:40 PM
To: JGO Testimony
Cc: barb@cmorgray.com
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Barbara Seymour-Gray
Organization: Individual
Address:
Phone:
E-mail: barb@cmorgray.com
Submitted on: 3/31/2009

Comments:

I have recently heard about Bill HB366 and wish to add my comments in support of the bill to protect the Hawaiian manta rays . These beautiful creatures are one of the main reasons I travel to Hawaiian to dive. I have spent many hours watching them from above and below the water and it would be, in my opinion, detrimental to my visiting Hawaii (Kona in particular) if these animals were not in abundance. As a diver I can be assured of their nightly visits which is very important. I have so many fantastic memories of their graceful movements. Please do everything possible to protect these beautiful vulnerable creatures.

Sincerely,
Barbara Seymour-Gray, Vancouver BC Canada

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:39 PM
To: JGO Testimony
Cc: sabbath999@mac.com
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Ken Mitchell
Organization: Individual
Address:
Phone:
E-mail: sabbath999@mac.com
Submitted on: 3/31/2009

Comments:

My wife and I are both divers, and one of the things that draws us back to Kona is the manta rays. We have traveled from Missouri to Kona 3 times in the last two years, and the highlight of our last trip was observing mantas in a diving situation that is safe for both the divers and the animals.

Mantas annually draw tens of thousands of tourists to Hawai'i, and MUST be protected if for no other reason than the vast economic value of these creatures vs. the virtually nonexistent value of killing them.

I was absolutely shocked when our boat captain said that the mantas are not protected in Hawaiian waters, because I could not believe that the state would risk losing a major tourist draw over simply banning fishing for this one type of non-game species in a limited area.

Please protect these animals in your waters, if not for their sake then for the sake of your economy.

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:38 PM
To: JGO Testimony
Cc: timrock@doubleblue.com
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Tim Rock
Organization: Individual
Address:
Phone:
E-mail: timrock@doubleblue.com
Submitted on: 3/31/2009

Comments:
Testimony:

I have traveled the world photographing manta rays.

Manta ray populations are extremely susceptible to predation. Please support protection measures for mantas as I do.

Tim Rock

--

Tim Rock
P.O. Box 24666 GMF
Barrigada, Guam 96921 USA
671-734-6825

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Website: <http://www.doubleblue.com>

Photoshelter Stock Website: <http://pa.photoshelter.com/c/timrock>

Tim's Blog: <http://timrockblog.blogspot.com/>

E-Mail: timrock@doubleblue.com

QUOTE OF THE YEAR: "Photography to the amateur is recreation, to the professional it is work, and hard work too, no matter how pleasurable it may be." - Edward Weston QUOTE II: "Before I speak, I have something important to say." - Julius Marx (aka Groucho)

March 31, 2009

Dear Hawaii State House of Representatives,

I am writing in strong and urgent support of bill HB366 to protect Hawaiian Manta Rays from fishing for live export in the aquarium trade, and export as a food/homeopathic medicinal product. I have been privileged to see these magnificent animals off the Kona coast on the Big Island as well as off of the southern shores of Maui. Being just feet away from these animals as they soar in circles through the water is an exhilarating experience. Many visitors, residents, and the tourism industry will agree that these spectacular animals are worth more alive than dead. Manta Ray ecotourism generated **2.5 million** dollars in 1992, and it is prospected that this will only increase as stories are told around the world. There are currently no laws protecting these fascinating animals from fishing.

A Manta Ray fishery in Hawaii will potentially wipe out the populations here. Manta rays are very site attached, which means they do not migrate between islands. Therefore if we wipe out manta rays in Hawaii, there is little chance of reintroductions from other regions of the world. There have been 154 manta rays identified off of the kona coast since 1992. Females can only give birth to one or two pups per year. If Manta rays are fished at low rates, there is a high chance that these animals can be wiped out in a very short period of time. Shark fisheries off the coast of Mexico have been wiped out very rapidly because of the high fishing pressure, and life history strategies. Because Manta Rays are closely related to sharks and have similar life histories, it is very likely that a Manta fishery in Hawaii will have negative effects on the populations here.

Once again, Manta Rays bring in over **2.5 million dollars** a year, **they are worth more alive in Hawaii** than dead, and there is no reason we should allow outside parties to generate income using Hawaiian Manta Rays with very little to no positive economic impact for the state of Hawaii.

I strongly urge my state representatives to vote for bill HB366 in order to protect Hawaiian Manta Rays from destructive fishing practices.

Mahalo Nui Loa

John Fitzpatrick
Research Assistant
University of Hawaii, Manoa
Department of Zoology
Email: johnfitz@hawaii.edu

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:35 PM
To: JGO Testimony
Cc: ian@pbrc.hawaii.edu
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Ian M. Cooke
Organization: Individual
Address:
Phone:
E-mail: ian@pbrc.hawaii.edu
Submitted on: 3/31/2009

Comments:

The very slow reproductive rate of manta rays means that unrestrained fishing of these easily observed and caught animals will quickly result in their disappearance. These animals are accessible to study in the wild and removal to an aquarium should be restricted to qualified researchers with appropriate local facilities. Their capture for commercial purposes and for export from Hawaii should be strictly prohibited.

I recall my excitement and fascination at seeing my first manta ray at age 8 on a family vacation to Kona. I'm told that the rays still present a major visitor attraction there and at other locations. Their value to the State as a feature for ecotourism is enormously greater than as a commercial export item.

Please support the passage of legislation to protect this very limited resource.

Ian M. Cooke
2000 Ualakaa Street
Honolulu, HI 96822

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:34 PM
To: JGO Testimony
Cc: karenh@austin.rr.com
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Karen Herrington
Organization: Individual
Address:
Phone:
E-mail: karenh@austin.rr.com
Submitted on: 3/31/2009

Comments:

I am writing in support of HB366. It is crucial that the manta rays of Hawaii receive legislative protection at this time. Scientifically they are one of the best known and studied populations in the world and they are completely vulnerable to indiscriminate killing or capturing. In addition to the scientific value of this population, the scuba diving industry does a very substantial business taking tourists to see the manta rays, and the loss of these animals would decimate this important source of tourism income, not to mention giving Hawaii a bad rap for failing to protect such a unique and special creature.

DLNR opposes this bill because they think it should be under Administrative Rules. However, this is the same argument they made in 2006 when HR 30 was passed directing them to come up with rules. Here we are three years later and no progress has been made in protecting manta rays. In the meantime two organizations have made inquiries into collecting manta rays in Hawaii. Manta rays need protection now, and HB366 is the only way they can get immediate protection.

The aquarium industry opposes the bill because they would like to be able to collect manta rays for display. A reputable aquarium or research institution would still be able to apply for a collecting permit under DLNR, but HB366 would allow such collections to be regulated so that there is no negative impact to the population.

There is no other opposition to the bill. Now is the time to protect Hawaii's manta rays. Later may be too late.

Karen Herrington

Karen Herrington
512-336-0258 office
512-336-0259 fax
512-797-1771 cell

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:33 PM
To: JGO Testimony
Cc: kimtice@gmail.com
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Kimberly Tice
Organization: Individual
Address:
Phone:
E-mail: kimtice@gmail.com
Submitted on: 3/31/2009

Comments:
To Whom It May Concern:

I am writing to voice my support for HB 366 and SB394. These bills create penalties for anyone who captures or kills a manta ray in marine waters, effectively preventing the development of a manta ray fishery here in Hawaii. Hawaii has never had a manta fishery, although these are common in other locations throughout the Pacific. Because mantas in Hawaii have never been fished, they still have relatively healthy populations, unlike other populations that have been decimated due to over fishing.

Mantas are extremely sensitive to fishing pressure because of their life history. Female only give birth to a single pup at a time, once every one to three years. Fecundity is low, but natural adult survival is high, allowing populations to remain stable. A fishery quickly throws this equation off balance, as young mantas cannot replace quickly enough the adult mantas that are being caught and killed.

Not only are mantas amazing creatures, they are also a boon to Hawaii's economy. Many tourists come to the Big Island, especially, to have the opportunity to dive with these majestic creatures, injecting cash into the economy. The revenue that can be gained from tourism and the protection of these animals is much greater than what would be gained from a fishery to catch and kill them. I strongly urge you to pass HB366/SB394.

Sincerely,

Kimberly A. Tice
4340B Lanihale Pl.
Honolulu, HI 96816
(808) 343-6329

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:32 PM
To: JGO Testimony
Cc: amakuavideo@gmail.com
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Thomas Gorgas
Organization: Individual
Address:
Phone:
E-mail: amakuavideo@gmail.com
Submitted on: 3/31/2009

Comments:

To whom this is of concern:

With great pleasure did we receive the message that the legislature in Hawaii passed the bill to protect our Manta Rays in Hawaiian Waters, and now pass this bill draft further to the Senate.

We can only congratulate the leadership qualities of those who supported and voted for this bill to pass!

Manta Rays are amazing creatures and a vital part of a vibrant tourist industry in Hawaii, totalling over \$320 Mil. per year. Why cut parts off the tree that we are sitting on ~ a tree, which also provides food & shade for those who are sitting underneath the tree's canopy? This is our "Tree of Life"; that we are tinkering with!

Manta Rays in Hawaiian Waters have been a tourist attraction for years, and to endanger that portion of our commercial livelihood violates all rules of creating and maintaining a healthy economy. Scientists who study those incredible "Flying Fish" and tour operators must educate our valued tourists, clients and customers so that we all live with the mindset of how much value is added to our lives when Manta Rays are thriving in our waters. Conversely, what high value is taken away from all the above when they are not protected.

We are currently exploring the climate history of our Earth on board of the world-famous JOIDES RESOLUTION (<http://www.joidesresolution.org> & <http://www.iodp.org/>), and while this endeavor has a lot of merit to unearth the geological and biological history of our Planet, we also like to see that we prudently and diligently take care of our collective NOW and HERE - and the Manta Rays are certainly a part of this NOW...

In service and sincerely yours ~

Thomas Gorgas, Ph.D.
Cell: 808.778.3459

Video Producer

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:31 PM
To: JGO Testimony
Cc: bluewater.ong@gmail.com
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Ling Ong
Organization: Individual
Address:
Phone:
E-mail: bluewater.ong@gmail.com
Submitted on: 3/31/2009

Comments:

fully support the bill to protect manta rays in Hawaii. These creatures are long lived and have slow reproductive rates which make them vulnerable to overfishing and slow to recover from its effects. Let us learn from mistakes made in other locations and other countries, which have found that manta rays cannot be harvested without harm to their populations. Let Hawaii set the example and not repeat the mistakes made by others. We are fortunate to have an unexploited population of manta rays that can now be protected and enjoyed by generations to come.

Ling Ong, Phd
bluewater.ong@gmail.com
Individual
19 Ala Kimo Drive,
Honolulu HI 96817
Tel: 218-2239

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:30 PM
To: JGO Testimony
Cc: kristy.martin@gmail.com
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Kristy Martin
Organization: Individual
Address:
Phone:
E-mail: kristy.martin@gmail.com
Submitted on: 3/31/2009

Comments:

In 2005, my husband and I had the privilege of seeing a group of manta rays feeding one evening off the Kona coast. It was truly an awesome sight to see these magnificent animals in the wild. Our guide for the evening provided information and insight into the ray's lives that we had never heard before.

We avidly support the passage of bill HB366. It is crucial that these rays are protected and that laws are placed to prevent anyone from capturing, killing, or otherwise harming manta rays within Hawaii state waters.

Sincerely,
Kristy Martin

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:29 PM
To: JGO Testimony
Cc: dolphin.dancer@yahoo.com
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Denise Stuart
Organization: Individual
Address:
Phone:
E-mail: dolphin.dancer@yahoo.com
Submitted on: 3/31/2009

Comments:

Dear Legislators:

I am writing regarding the Manta Protection bill, and to express my interests in protecting one of Hawaii's greatest natural resources.

The Manta Rays are an important part of Hawaii's Ocean Eco System, and need to be protected. They also bring millions of dollars into the local economy, which also needs protecting in these hard economic times. The Mantas currently have no protection from fishing or collecting. This needs to be changed now.

There are only two groups in opposition to legislation - the DLNR and Aquarium Collectors. The DLNR made the same argument in 2006 that it is making now, and when they were told to come up with administrative procedures they failed to do so. Obviously we cannot trust the DLNR to take action in a timely manner. The agenda of the aquarium collectors is obvious. They do not want the Mantas protected so they can come and collect at will.

PLEASE - Take a close look at what is driving, or in the case of the DLNR -not driving- these two organizations, and weigh that against all the support this matter has received from your constituents. It is time for you to be the voice of the people living here in Hawaii and protect one our greatest Natural Resources - the Manta Ray.

My question to you is will you bow to the DLNR who has proven itself incapable of writing administrative procedures to protect the mantas, or to the aquarium collectors who's agenda is obvious, or will you stand up with your constituents and vote to protect these magnificent creatures?

The time to act is NOW! Our Manta rays need protection NOW! We have a duty to protect them so they are here for future generations to enjoy. We have a duty to protect the delicate eco-system we all enjoy here in our beautiful state.

Don't wait until they are nearly gone, or all gone to do something. Please vote to protect our Manta Rays NOW!

Sincerely

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:28 PM
To: JGO Testimony
Cc: bluemanta@earthlink.net
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Carlos and Margaret Eyles
Organization: Individual
Address:
Phone:
E-mail: bluemanta@earthlink.net
Submitted on: 3/31/2009

Comments:

Dear Sir or Madam

Across the globe animals are losing their birthrights to their space on this planet. Humans have exploited them into extinction. I have personally witnessed this in the manta ray population of Mexico that once graced the Sea of Cortez in the thousands, today not a single manta ray has survived the human onslaught in that region. Please do not let this happen in Hawaii where we hold a higher place for all living things indigenous to our lands and seas. Please vote for manta ray protection as outlined in bill HB 366.

Thank you

Carlos and Margaret Eyles

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:27 PM
To: JGO Testimony
Cc: rich@seaparadise.com
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Richard Kersten
Organization: Individual
Address:
Phone:
E-mail: rich@seaparadise.com
Submitted on: 3/31/2009

Comments:
Please pass HB366, as we fully support this!!

Richard Kersten
Operations Manager
Sea Paradise
Ph. 808-322-2500
FAX. 808-322-2760
www.seaparadise.com

March 31, 2009

Aloha,

My name is Adam J Clark; I am a resident of Washington State and a property owner in Kailua-Kona, HI.

I am writing you with great interest and concern about HB366 relating to Manta Rays in Hawaii. I began visiting the Islands over 20 years ago and have not missed an opportunity to visit at least once if not 2 or 3 times annually for the past 15 years. I love this land and these waters so much my wife and I felt motivated to purchase property here in 2006. Our property is often rented to vacationers/divers wanting to explore the great diving that exists in Kona waters. A large part of the attraction to Kona for vacationers/divers is the Manta Ray. They know this is the place to come for an experience like no other. As a PADI Dive Master Professional as well as a PADI Master Diver, I believe these beautiful creatures provide a strong economic drawn for Kona and Hawaii. Think about how much the Mantas contribute to our local economy, dive shops, hotels, restaurants, car rentals, etc... By passing HB366, you will protect this invaluable natural resource for generations to come. In addition history has proven time and time again when humans disturb nature no good can come of it, the Manta Rays need this protection. Please, I strongly urge you to pass HB366.

Mahalo Nui Loa,

Adam J Clark
6619 132nd AVE NE
PMB 150
Kirkland, WA 98033

78-7054 Kamehameha III RD
Unit #1102
Kailua-Kona, HI 96740

Cell 425-246-2210

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:25 PM
To: JGO Testimony
Cc: barbett@hawaii.rr.com
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Barry & Betty Fackler
Organization: Individual
Address:
Phone:
E-mail: barbett@hawaii.rr.com
Submitted on: 3/31/2009

Comments:

Please give your consideration to passing HB366. Manta Rays are an important part of Hawaii's eco-system. Additionally, for us on the Big Island, they are of great economic benefit for the tourism dollars they generate. Please keep our Manta Rays free from human predation whether it be in the form of commercial fishing or aquarium imprisonment.

Respectfully,

Barry Fackler
Betty Fackler

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:24 PM
To: JGO Testimony
Cc: joshtemes@gmail.com
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Josh Temes
Organization: Individual
Address:
Phone:
E-mail: joshtemes@gmail.com
Submitted on: 3/31/2009

Comments:

I very strongly support HB366 and SB394. Manta rays are the most majestic, amazing, and fantastic animals I have ever seen in my life. This past summer, I participated in a manta ray night dive in Kona, Hawaii. As soon as we disappeared into the dark, amazing waters, we began to see manta rays. Huge, amazing, majestic manta rays. For about an hour we watched these manta rays frolicking around and gorging themselves in plankton. My manta ray dive in Hawaii was definitely the most amazing experience of my life. Every day, i reflect on how amazing these creatures are; and every day I can barely wait to get back to Hawaii to visit these creatures again. After I returned to the mainland, my home, I began to become very passionate about manta rays. I did many school projects on them and learned a lot. After learning there is no current protection for mantas in Hawai'i, I was astounded. These amazing animals, could simply be hunted down? Only 154 manta rays have been identified along the Kona Coast since 1992. Even one or two of these mantas being killed or taken to aquariums could be devastating. Lefty, of of the signature manta rays you can see while diving, has been around for more than 20 years. Seeing these amazing animals in Hawaii has without a doubt impacted the rest of my life. I hope to see these animals fully protected for their safety and security.NOW. Not in 2020, for all we know, the animals could be wiped off the face of the plane by then. we need protection ASAP. Watching these fantastic creatures die is unthinkable. Thank you.

Josh, Palo Alto, CA

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:23 PM
To: JGO Testimony
Cc: cperritt@yahoo.com
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Chris Perritt
Organization: Individual
Address:
Phone:
E-mail: cperritt@yahoo.com
Submitted on: 3/31/2009

Comments:

I support a law to protect Hawaii's manta rays. The law should prohibit killing or capturing of manta rays and it should include penalties if the law is broken. Further studies are not needed.

Please protect our manta rays now before it is too late.

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:22 PM
To: JGO Testimony
Cc: wetphoto@aol.com
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Wayne & Geri Joseph
Organization: Individual
Address:
Phone:
E-mail: wetphoto@aol.com
Submitted on: 3/31/2009

Comments:

My wife & I are frequent visitors to Kona. We are avid SCUBA divers & our main reason in visiting the big island is to dive with the manta rays. They are truly majestic & beautiful creatures who are just as curious about us as we are about them. There are too many other areas in the South Pacific where there is no control & the populations of sea life are diminishing quickly. We also have been visiting Maui since 1980 & have seen the population of turtles greatly increase since they have been protected. Please help to sustain & hopefully increase the populations of these animals. As more of them appear, you surely will get more divers to Hawaii to observe them.

Wayne & Geri Joseph

Manta Testimony

I have been to Hawaii for a total four weeks over the last several years, principally to have my family dive and snorkel with manta rays. I have been diving in many parts of the world and there is no creature more majestic or mysterious in my mind. Any bill that can be passed that will aid in the preservation of these amazing creatures is worthy of passage. I live in Virginia and travel a long way to enjoy watching the manta ray's in their habitat. If protective measures are not passed and the manta's disappear from the water's of Hawaii, I will not be the only tourist who finds other places to spend vacation dollars. While I say that, please don't pass protective measures simply to attract tourism, pass the measures for the sake of preserving one of our ocean's greatest living creatures. The time to act is now and to provide protection immediately. With no sense of urgency, these Manta's could disappear in the blink of an eye.

Thanks for listening,

Craig Grube

844 S. Atlantic Ave.

Virginia Beach, VA 23451

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:19 PM
To: JGO Testimony
Cc: Gregkarenj@aol.com
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Karen Johnson
Organization: Individual
Address:
Phone:
E-mail: Gregkarenj@aol.com
Submitted on: 3/31/2009

Comments:

I am sending this testimony to hopefully help get protection NOW for the manta ray!! It is IMPERATIVE that they get the protection now before it is too late.

In August of 1994, my family went on vacation to Maui where my husband and I went scuba diving off Molokini Island. We did a wall dive and while on the dive something told me to look out behind me to the great expanse of water rather than focusing on the wall. To my amazement and awe there, all by him/herself, was a manta ray with a wingspan of about 15-20 feet. I screamed through my regulator and my husband turned around to look. We got the attention of the dive master and all of us went swimming over to the manta. He put on a spectacular show: flipping and moving gracefully through the water. I was so touched and mesmerized I still think of the experience to this day. They are magnificent, gentle creatures. I learned more about them from a PBS special a few years ago about a group who go on an annual research trip to study the manta off the tip of Baja. >From this I learned how smart these creatures are. The researchers became acquainted with the mantas and they remembered them year after year. I was fascinated to learn that the manta could recognize the researchers by looking in the masks of the divers to see their eyes. How intelligent they must be!!!

Please do something NOW to protect these very special marine animals!!

Thank you,
Karen Johnson
Carlsbad, CA

To Whom It May Concern:

I am writing to give my dearest support to SB394 and HB366. This bill is designed to give protection to one of nature's most incredible creations, the manta ray. I have had the pleasure to scuba dive with these majestic creatures along your coast, and I can think of no better experience I have had in my 17 years of life. Scientists have found them to be quite intelligent creatures, and after looking one in the eye, I would have to agree. They may not be in any immediate danger at the moment, but would be decimated by any exploitation of their population. Because of the great amount of money the tourist industry brings in for diving with these creatures, over 2.5 million dollars in total, each living manta would be worth at least \$16,000 to the Hawaiian economy yearly. This said, you cannot really put a price on any one of these majestic creatures, which have a right simply to be aloud to live. Please be responsible in representing the people of Hawaii and the world, who benefit greatly from manta rays. Please support this bill to help ensure the protection of these creatures immediatly so they may continue to thrive on into the future.

Sincerely,

Noah Michael Schlager

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:17 PM
To: JGO Testimony
Cc: scubamendy@earthlink.net
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Jim (JJ) Mendenhall
Organization: Individual
Address:
Phone:
E-mail: scubamendy@earthlink.net
Submitted on: 3/31/2009

Comments:

My Name is James Mendenhall (JJ) 808-895-0076

I am a coast guard licensed boat captain and scuba instructor working on the Kona side of the Big Island.

I am writing regarding HB 366 coming up before the committee on Water, Land and Ocean Resources. Monday, February 2 @ 9AM

No mater how you may feel about manta rays personally it is clear that tourism drives Hawaii's economy and the resident mantas represent a significant draw for visitors here on the Big Island and Maui as well. The Manta Ray Night Dives are known worldwide and thousands of divers and snorklers participate annually at an average rate of about \$100 each.

We don't know all there is to know about mantas but what we do know is that if undisturbed they live a long time and reproduce slowly. The resident population numbers in the hundreds and not in the thousands so even a few removed from the islands may have a detrimental effect on the tourism product. Under the current economic down turn it is unreasonable to leave this resource unprotected. A lost or dead manta has zero value to the state and the people of Hawaii. I urge you to pass HB 366 and preserve this valuable resource for now and the future.

Thank you

Captain James Mendenhall (JJ)

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:15 PM
To: JGO Testimony
Cc: hay_patricia@yahoo.fr
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Patricia Hay
Organization: Individual
Address:
Phone:
E-mail: hay_patricia@yahoo.fr
Submitted on: 3/31/2009

Comments:

My name is Patricia Hay (35, Paris), I am a mere french citizen who was incredibly lucky to visit manta rays in Hawa#239; once in her life. I found them so incredibly beautiful that I cried under water. I now have 2 little boys and I promised to myself that one day I will take them to Hawa#239; to visit manta rays in open waters.

I heard that 2 important bills regarding manta rays were going to be voted this year in Hawa#239;. and that the manta rays' survival is at stake.

Hawaii has now been targeted by aquariums as a location where they can capture manta rays for husbandry experiments and for display in tanks. Without legislative protection, these aquariums would be able to take as many mantas as they want. As a consequence, manta rays would be highly susceptible to overfishing. If we protect mantas once fishing starts it will be too late.

I hope legislators will make the right choice for future generations.

thanks for your attention.

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 31, 2009 3:13 PM
To: JGO Testimony
Cc: cogliandro@msn.com
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Nancy & Chris Cogliandro
Organization: Individual
Address:
Phone:
E-mail: cogliandro@msn.com
Submitted on: 3/31/2009

Comments:

The Manta Rays are a beautiful reason that my husband and I visit Hawaii every year. We specifically visit Kona to dive with the Manta Rays. Every year we look for Lefty. If, one year, Lefty became missing due to trapping or fishing, it would be like losing a long time friend. We beg of you to help protect the Manta Rays in Hawaii. Please don't wait until 2020. The Manta Rays need protection now.

Testimony

To: Senator Brian T. Taniguchi, Chair, Senator Dwight Y. Takamine, Vice-Chair,
SENATE COMMITTEE ON JUDICIARY AND GOVERNMENT OPERATIONS

For: hearing Thursday, April 02, 2009, 10:15 a.m.

Conference Room 016, State Capitol, 415 South Beretania Street

Please make 25 copies for distribution

TESTIMONY IN SUPPORT OF HB 366, relating to Manta Rays

As the year 2009 begins, Hawaii is known among ocean enthusiasts as the best place in the world to see the magnificent living “flying carpets” known as manta rays. The Kona population of manta rays alone brings millions of tourism dollars into our struggling state economy each year. Local residents consider the mantas as “ohana” and know each one by name and by individual color patterns and other characteristics. The loss of any single “family member” would be considered a tragedy to those who dive with these animals nightly and always look out for familiar individuals.

In the 1950’s the most famous place for mantas was Bimini, Bahamas. Tourists flew to Bimini on seaplanes to hunt the “sea monsters” with harpoons. By the 1970’s, and likely earlier, the giant mantas of the Bahamas had vanished. I made hundreds of dives in Bimini and never saw a manta, nor have I ever heard of anyone seeing a manta ray anywhere in the Bahamas in the last 35 years. With their low reproductive rate, they have never been able to recover from the slaughter.

In 2006, the island of Saipan was considered the best place in the world to see graceful eagle rays. There was a diver attraction known as “Eagle Ray City” where divers came from all over the world to see the rays, just as they come to Ho’ona Bay in Kona to see manta rays. But that year some residents began to spear eagle rays for food. Divers pressured the government and a bill was passed in 2007 to protect the eagle rays – but it was too late. The rays had already abandoned the site, and did not return in 2008. The goose that laid the golden eggs had been killed.

In 2008, we also had an incident of vandals spearing an eagle ray in Kona. There were inquiries from merchants wanting to buy manta ray parts from Hawaii for sale in Asia, and a contract was issued by a mainland aquarium for the capture of Hawaiian mantas for studies related to aquarium husbandry. For the divers who know these animals, this would be like having someone come into your home to snatch the beloved family dog. Except that you can always buy another dog, but a manta ray cannot be replaced.

We have a very clear choice. We can grant total protection to these lovely, harmless residents of our waters that give so much joy to visitors and residents alike, and provide so much benefit to our economy. Or we can do nothing and watch them go the way of Bimini’s mantas and Saipan’s eagle rays. We can do nothing and continue Hawaii’s proud tradition as the extinction capital of the Western Hemisphere. We can do nothing and ignore the advice of biologists who tell us that mantas have very low reproductive rates and that Hawaiian mantas live in small localized colonies that are not replenished by immigration. We can do nothing and worry later about how to explain to the keiki why we let the Hawaiian manta go the way of the Hawaiian flightless duck. The Philippines, Mexico, and Yap have all recognized the value of mantas as living resources and the fragility of their populations and protected them.

At this moment Hawaii is still the most famous place in the world to see manta rays in the wild. Will it still be that way in a few years? Your vote in favor of HB366 can help keep it that way forever.

Mahalo,



Doug Perrine, 76-223 Haoa Street, Kailua-Kona HI 96740, (808) 329-4523, perrine@hawaii.rr.com

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, April 01, 2009 9:44 AM
To: JGO Testimony
Cc: david.j.maddox@juno.com
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: David Maddox
Organization: Individual
Address:
Phone:
E-mail: david.j.maddox@juno.com
Submitted on: 4/1/2009

Comments:

Aloha and thank you for allowing me to submit this testimony in support of HB366. I am a PADI Divemaster and U.S.C.G Captain and I've been taking visitors and friends diving along the Kona Coast for nine years. During that time, I've been able to witness manta rays in their natural habitat many times as well as share that experience with scuba divers and snorkelers. I've known many people who have come back to Hawaii specifically for the opportunity to see manta rays because they saw them on their previous visit. I've also had many people tell me they came to Hawaii to see manta rays because they heard about them from their friends. I firmly believe it is in Hawaii's best economic interest to protect manta rays from fishing and collection.

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, April 01, 2009 9:42 AM
To: JGO Testimony
Cc: dailer@hawaii.edu
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Meghan Dailer
Organization: Individual
Address:
Phone:
E-mail: dailer@hawaii.edu
Submitted on: 4/1/2009

Comments:

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, April 01, 2009 7:52 AM
To: JGO Testimony
Cc: angiepierce@yahoo.com
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Angie Pierce
Organization: Individual
Address:
Phone:
E-mail: angiepierce@yahoo.com
Submitted on: 4/1/2009

Comments:

Please pass HB366 to protect the manta rays! Seeing the mantas while diving off Kona was one of the greatest experiences of my life. I will be back. The mantas are beautiful and fascinating creatures and deserve our protection.

Angela Pierce
303-336-9604
Denver Colorado

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, April 01, 2009 7:51 AM
To: JGO Testimony
Cc: whitedove37043@yahoo.com
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Judith Everhart
Organization: Individual
Address:
Phone:
E-mail: whitedove37043@yahoo.com
Submitted on: 4/1/2009

Comments:

Dear Sir, I am writing to beg you to please help to pass the Manta Ray Protection bill. They are such beautiful animals. The manta rays are American Treasures beyond measure. Hawaii cannot allow people to kill these animals. We must protect these magnificent creatures for the world. Thank you, I hope this bill passes. Judith Everhart

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016

Testifier position: support

Testifier will be present: No

Submitted by: Rahnne Tranter

Organization: Individual

Address:

Phone:

E-mail: Rahnne_Tranter@health.qld.gov.au Submitted on: 4/1/2009

Comments:

Bill: HB366

I wish to add my testimony in support of Bill HB366.

I think that manta rays are the most awesome of creatures. It was in Hawaii on the Kona Coast where my husband and I were able to realise our dream and swim with these amazing, beautiful creatures. The most wondrous thing was that they were totally wild – they chose to be there with us for those precious, precious moments. They had not been pulled by a chain, they were not caged and they were not boxed in an aquarium. We travelled to Hawaii for the sole reason to swim with the wild Manta Rays. We are not alone in this either as, manta ray ecotourism generates big tourist dollars (over 2.5 million dollars per year in revenue for the state of Hawaii in 2002). The increase in tourism over the last seven years suggests even more is generated today. This depends on a healthy population of live manta rays in Hawaii.

If you allow humans to start taking them from the wild, the population will diminish very, very quickly. Manta rays have extremely low reproductive rates. Only 2-3 new pups are observed in Kona each year. It would take a long time for captured manta rays to be replaced by natural reproduction. Manta rays do not have to be in aquarium for researchers to learn more about them. Hawaii is a perfect location for researchers to study manta rays in the wild. In addition this increased research activity would bring income into the state through increased visitor expenditure and the increased tourist dollar.

There is no reason we should allow our local manta rays to be sold to generate income for outside parties. They are worth much more to Hawaii alive and swimming in our local waters than dead or stuck in a tank on the mainland.

So many creatures suffer at the hands of man – make the right decision to stop that here. Let them go and let them justlive. Out of danger. Free to live their lives. Humans make such a big deal of being free, the right to vote etc – please do not commit these wondrous creatures to a life where they are no longer free.

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, April 01, 2009 6:59 AM
To: JGO Testimony
Cc: mauirobin@aol.com
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Robin Newbold
Organization: Individual
Address: 3136 Kikihi St. Kihei, Hi
Phone: 808-276-7052
E-mail: mauirobin@aol.com
Submitted on: 4/1/2009

Comments:

Protecting Hawaii's small population of mantas is critically important. Please pass HB366

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, April 01, 2009 12:25 PM
To: JGO Testimony
Cc: tlclark2@bellsouth.net
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Tom Clark
Organization: Individual
Address:
Phone:
E-mail: tlclark2@bellsouth.net
Submitted on: 4/1/2009

Comments:

I fully support HB366 in its current form, which would prohibit take of manta rays in Hawaii except under special use permits. I further support the amendment limiting the take under permit to that considered reasonable based on the calculation of Potential Biological Removal.

Tom Clark

HB366 Testimony
Timothy B. Clark

I am the science advisor for Manta Pacific Research Foundation and a graduate student at the University of Hawaii. I have been conducting research on manta rays for over ten years. I am writing in support of House Bill 366 which would provide protection of manta rays in Hawaii.

I strongly urge you to support the protection of manta rays in Hawaii. We are lucky in Hawaii to have manta rays regularly visiting our coastline, attracting visitors from around the world who want to see these magnificent animals. Over 30,000 visitors per year come to Hawaii to swim and dive with mantas, generating over \$3.5 million/year in revenue for Hawaii residents. We have a unique opportunity in Hawaii for visitors and researchers to learn about and interact with manta rays in the wild. However, no protection currently exists for manta rays in our waters, despite the fact that there are fewer manta rays in Hawaii than many of the endangered species that we protect. This wild population and unique resource should be protected, as should the industry that depends on the animals continued health.

Hawaii has a healthy population of manta rays, but information on the life history and movement rates suggest that they would be highly susceptible to overfishing. Any take of individuals from our population should be regulated to insure that this valuable resource is not wiped out.

Some key points about manta rays in Hawaii:

- Only 154 manta rays have been identified along the Kona Coast since 1992, suggesting very small population sizes.
- In the last four years an average of 57 unique individuals have been seen per year.
- No individual has ever been documented migrating between Kona and Maui, despite two separate photo-identification studies and two acoustic tracking studies. This suggests that each island has its own distinct population, and overfishing on one island will not be alleviated by migration of new individuals from another island.
- Manta rays have extremely low reproductive rates. Only 2-3 new pups are observed in Kona each year. Sexual maturity is late, possibly 10-12 years of age. Females have a single pup at a time, with a year gestation period. It would take a long time for captured manta rays to be replaced by natural reproduction.
- Manta rays are very long lived. One individual (Lefty) has been a resident in Kona since before 1979, when she was first identified as a full grown adult female.
- Kona is one of the best locations around the world to see manta rays in the wild. Manta rays are observed on 80% of the dives at Garden Eel Cove each year.
- Manta rays do not have to be in aquarium for researchers to learn more about them. Hawaii is a perfect location for researchers to study manta rays in the wild.

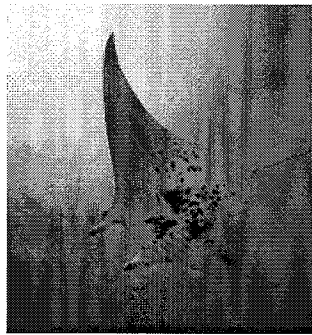
- There is currently no protection for manta rays from any type of fishing, collection, or capture in Hawaii.

While manta rays have been fished for years in Indonesia, Baja, the Philippines, Africa, and throughout Asia, no fishery has ever existed in Hawaii. However, there are no laws protecting manta rays from being fished. This year a spotted eagle ray was speared in Honokohau Harbor for fun, and a harmless whitetip reef shark was caught off of Puako. Besides fishing, this bill would also protect manta rays from this type of unwarranted killing. Additionally, aquariums have looked at Hawaii as a location where they can capture manta rays for husbandry experiments and for display in tanks. While aquariums provide unique opportunities for research and education, aquarium should have to obtain a permit before any take is allowed so that the state can monitor their activities.

Manta rays in Hawaii are a poor target for any fishery due to their small population sizes, lack of migration between islands, and low reproductive rates. Allowing any take of manta rays from Hawaii's populations could be detrimental for the health of the population, and to business that rely on having an abundance of individuals in Hawaii. I hope you will vote in favor of HB366. Please protect these amazing animals in our waters.

Mahalo,

Tim



Biology of the manta ray in Hawaii
by Tim Clark
Manta Pacific Research Foundation
and University of Hawaii
clarkt@hawaii.edu

The purpose of this paper is to review the scientific research related to the biology of the manta ray in Hawaii to give a general background to legislators related to protecting manta rays. Most of this data is being prepared for publication as part of my PhD research.

Manta ray is the common name used for several species of batoids around the world belonging to the genus *Manta* (currently one but most likely three species) and *Mobula* (nine species). These genera have a pair of fleshy appendages called cephalic fins projecting on opposite sides of the mouth that are used to funnel plankton into their oral cavity. The most commonly observed species in Hawaii is the coastal Manta species, *Manta birostris*. A second Manta species (*Manta sp.*) is also rarely observed here. This species is pelagic but occasionally comes near shore. What may be a hybrid of the two species also is rarely seen in Hawaii. This hybrid is commonly known as the “Black” manta due to its mostly black ventral surface (fig. 1). At least one unidentified species of *Mobula* has also been observed rarely in Hawaii.

Research in Hawaii has been on the coastal species of manta ray (*Manta birostris*). Individuals of this species are easily identified based on variations in their ventral pigmentation patterns. These patterns are stable throughout the life of an individual, allowing them to be used in photo-identification studies. Manta ray surveys have been conducted by recreational SCUBA dive instructors along the Kona Coast since 1992. From 1992 through 2007 a total of 3208 surveys were conducted, primarily at the Keauhou and Ho’ona Bay dive sites where manta rays congregate at night. Divers reported number of manta rays observed, identity of individuals if known, an index of plankton abundance, the number of vessels utilizing the site, and an estimate of the number of divers and snorkelers in the water.

The population of manta rays in Kona appears to be small, and probably numbers under 200 individuals though no formal mark/recapture analysis has been conducted. A total of 106 individuals were identified on the Kona Coast of Hawaii from 1992 through 2007 (fig. 2). Individuals were observed between 1 and 724 times over the course of the study. Not all individuals were sighted every year. The number of unique individuals per year ranged from 1 to 65 along the Kona Coast (Keauhou 1 – 22, Ho’ona Bay 2-58) (fig. 3).

The life history of manta rays is poorly known, but in general they appear to have characteristics similar to many shark species, with long life spans, slow growth rates, late sexual maturity, and low reproductive rates. The oldest known individual in Kona is a minimum of 30 years age, having been identified as a full grown adult in 1979. Age of sexual maturity is not known, but appears to be in the teens based on growth of claspers

in males (claspers in mature individuals extend past the pelvic fin). Manta rays are ovoviviparous, and only produce a single pup at a time. Gestation rates are approximately one year, as was confirmed recently by the birth of two manta ray pups in two consecutive years from a single female in captivity at Okinawa Charaumi Aquarium (gestation 374 and 366 day, respectfully). From 1994 through 2007 there were 30 new pups identified in Kona, given a birth rate of approximately 2 pups per year (fig. 4).

Migration between islands is limited. No individual has been observed migrating between Maui and Kona either through photo-identification studies on both islands or acoustic telemetry. Photo-identification studies have identified 106 manta rays in Kona though 2007, and over 200 on Maui (data not shown). No individual have been observed on both islands. Telemetry studies show that manta rays tend to be coastal in Hawaii, with no individual recorded in depths greater than 1,000 ft. Tracking in Kona shows that mantas make regular migrations between feeding areas and cleaning stations, but only utilize a small area of the coastline on a regular basis (fig. 5).

Manta rays are of economic importance in Hawaii as a part of the dive and snorkel industry. Regular manta ray dives have been conducted along the Kona Coast of Hawaii since the late 1970's and on Maui since the early 2000's. A survey of nine dive shops in Kona revealed that those shops took approximately 11,000 snorkelers and divers on manta ray tours in 2002. Direct revenue to the nine shops was approximately \$920,000. In 2002, the Department of Business and Economic Development estimated that the average diver spent \$220 per day on vacation expenses in addition to diving (hotel, food, ect.). If each manta ray tourist spent one extra day in Hawaii to observe manta rays, over \$2.4 million in additional revenue would be generated for businesses in Kona due to manta ray tourism.

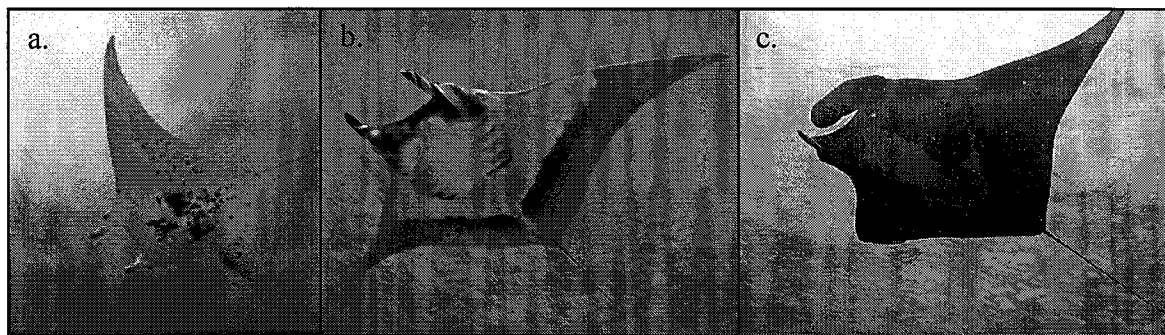


Figure 1 – Species of manta rays in Hawaii include the common coastal *Manta birostris* (a), the pelagic *Manta sp.* (b), the Black manta hybrid (c), and *Mobula sp.* (not shown).

Discovery curve - Kona Coast

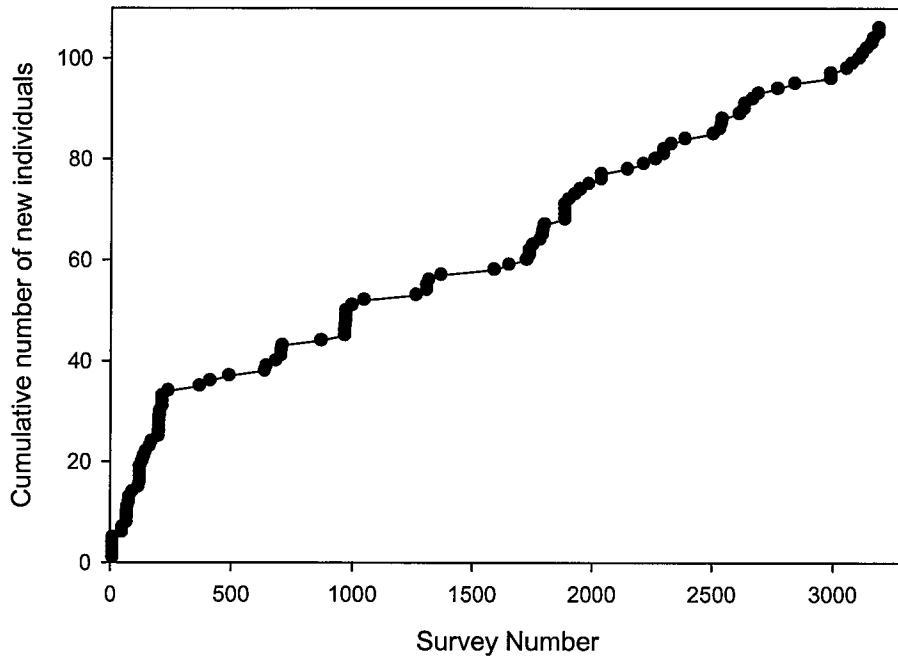


Figure 2 – Cumulative number of manta rays identified along the Kona Coast of Hawaii from 1992 through 2007.

Number of Unique Individuals per Year

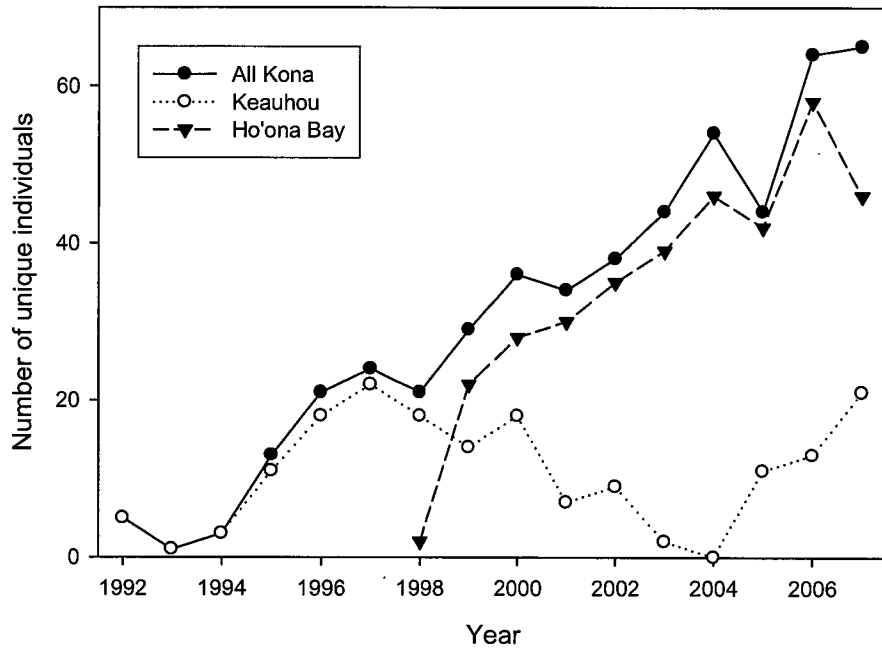


Figure 3 – Number of unique individuals encountered each year along the entire Kona Coast, Keauhou and Ho'ona Bay.

Discovery Curve - Kona pups

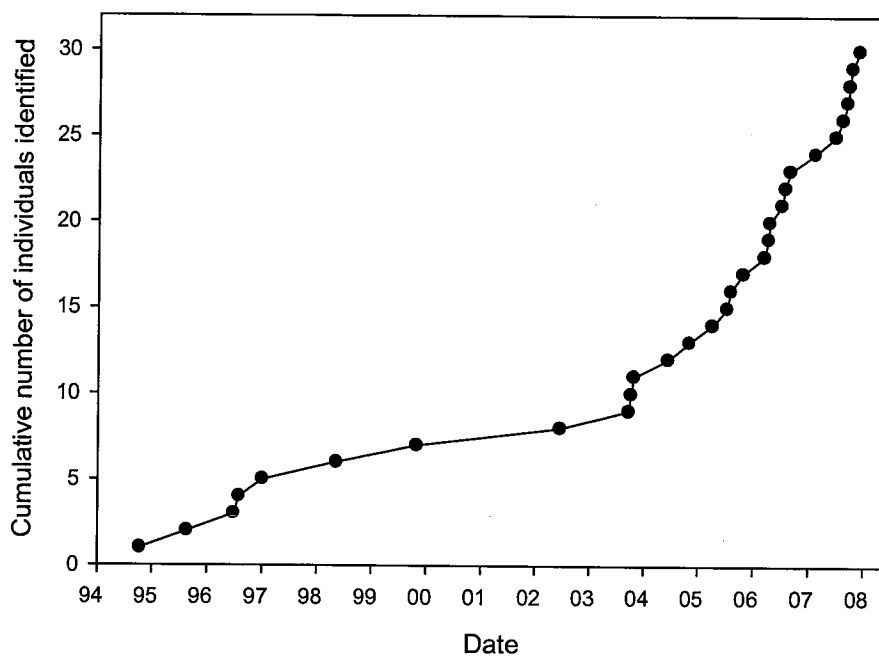


Figure 4 – Cumulative number of new pups entering the Kona population per year.

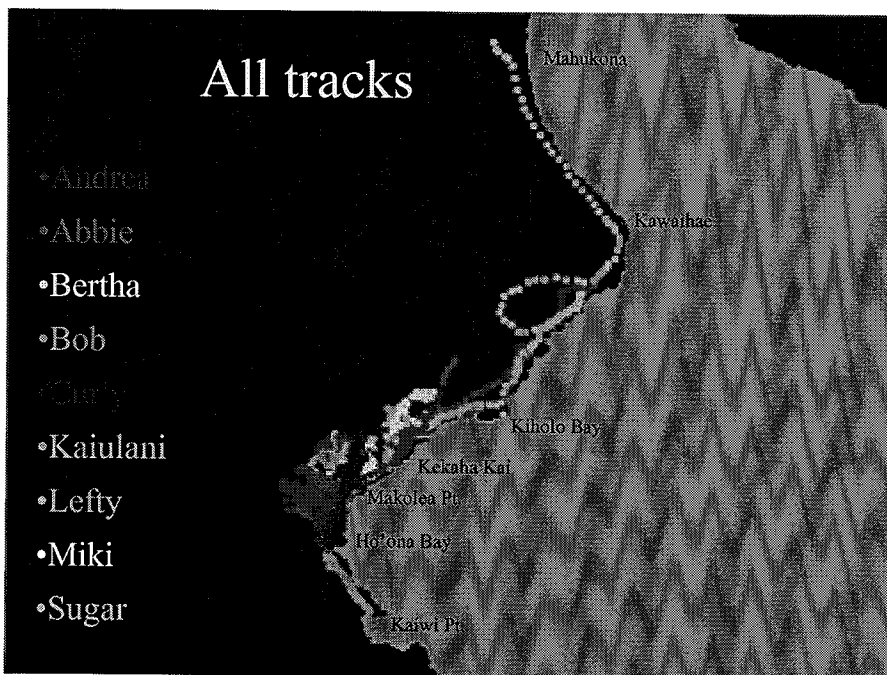


Figure 5 – Movement patterns of nine individual manta rays tracked for 3-10 days each along the Kona Coast of Hawaii. Each dot represents a 15 minute interval.

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, April 01, 2009 4:02 PM
To: JGO Testimony
Cc: katerb@hotmail.com
Subject: Testimony for HB366 on 4/2/2009 10:15:00 AM

Testimony for JGO 4/2/2009 10:15:00 AM HB366

Conference room: 016
Testifier position: support
Testifier will be present: No
Submitted by: Kater Bourdon
Organization: Individual
Address:
Phone:
E-mail: katerb@hotmail.com
Submitted on: 4/1/2009

Comments: