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Testimony  
Before the Committee on Resources  
Unites States House of Representatives

Hearing on H.R. 2933 the Critical Habitat Reform Act of 2003

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*Table of Contents*

Introduction

Expression of support for HR 2933 and an introduction to related issues and opportunities that directly affect the State of Florida's challenges

Sustainable Population

Including the goal of maintaining sustainable populations into the definition of critical habitat

Critical Natural Habitat

Clearly proscribing Federal ability to list man-made areas as critical habitat

ESA-MMPA Relationship

Ending the illogical and counterproductive legal relationship between ESA and MMPA

Exemptions for Economic Hardship

Better protecting jobs and business from unfair and burdensome regulation

Measurable Rules & Goals

Requiring measurable goals that are regularly evaluated for effectiveness

Presumption of Adequacy

Additional rules are presumed unnecessary in areas where measurable biological goals are being met

Citizen Suit Provision

Ensure citizens proper access to redress

Summary

Attachments

ESA-MMPA Relationship Amendment to ESA

Measurable Goals Amendment to ESA

Citizen Suit Amendment to ESA

FMCA Information Quality Complaint

Bibliography

## Introduction

My name is Steven Webster and I am Executive Director of Florida Marine Contractors Association, a not-for-profit association of dock-builders, and businesses that provide goods and services to dock-builders. I am also the vice president of Citizens For Florida's Waterways, a not-for-profit association of conservation-minded Florida family boaters. I am pleased to be here to speak in support of the Critical Habitat Reform Act of 2003.

Because of Federal interference in the State of Florida's manatee protection program, brought about by a lawsuit in 2000 that effectively put control in the hands of a Federal judge here in Washington<sup>i</sup>, you could say that I represent the people of Florida who can no longer enjoy a boat ride, and people who can no longer earn a living by building a dock.

Don't for a second think this is hyperbole. Manatee madness has so afflicted Florida that a book entitled "*The Florida Manatee Conspiracy of Ignorance*"<sup>ii</sup> is on its way to becoming a best seller, in the hands of government staff, office holders and "radical go-fast boaters"<sup>iii</sup> across the State.

Marine construction is a billion dollar a year industry in Florida, employing more than 10,000 people and generating three billion dollars in additional economic activity each year from the goods and services dock-builders purchase<sup>iv</sup>. It's a significant piece of Florida's economy, entirely composed of small businesses, yet the Federal government, enforcing the Endangered Species Act, is killing this industry and its member small businesses in the name of manatee protection.

In Florida, "mitigation" to "protect" manatees has three steps:

- 1) Speed zones – restricting pleasure boats to slow or idle speed
- 2) Signage – double-piling, fixed signs roughly outlining the zones
- 3) Enforcement – state and local officers charged with manatee zone ticket writing. Very little Federal enforcement takes place and for that we are grateful, as the Federal agents are ill-trained and often ill-mannered.

If the Service – or the Judge – says that any one of these three steps is inadequate, then the Service will not concur and Army Corps will deny permits. In some parts of Florida, no permits have been issued for years. In most cases, permit moratoriums have nothing to do with actual "take" of manatees by boats, but rather with arguments between various government units over how much is enough and who pays for it all. Last year, permits statewide were held up for five months because the Service was unable to process a new type of form that its own Washington headquarters had begun requiring. In Brevard County, permits were held for a year when the Service demanded 50 new signs to mark State – not Federal – zones.

The plain truth is: docks don't kill manatees<sup>v</sup>. But Federal policies are killing dock builders. Over the next two months, I sadly suspect three of our contractor members will go out of business because US Fish & Wildlife Service and the Army Corps won't allow them to do business. Several members have already given up since I took over as Executive Director in 2003.

I grew up in a mechanical contracting family. My father would never bid on Army Corps projects. I asked him why, and it wasn't just the piles of paperwork. "They are so antiquated that some of the materials they require aren't even made today," he said. "Their specs are usually wrong and even violate local building codes. I won't build anything that'll break the first day it's used," he said.

Today, it's even worse. The manatee program in Florida is at best broken, and at worst is responsible for more manatee deaths, more danger to people, more job loss, and it even causes air and water pollution.

Reform is needed before more damage is done. We enthusiastically endorse HR 2933 and the amendments proposed by Representative Cardoza.

### **Sustainable Population**

In my position, I work closely with many biologists and wildlife managers and have asked for their opinion and recommendations. In section 5 of HR 2933's proposed changes, we recommend including the phrase "sustainable population" in the clarified definitions of critical habitat. For example:

(II) the term 'essential to the conservation of the species' means, with respect to a specific area, that the area has those physical or biological features that are absolutely necessary and indispensable to conservation of the sustainable population of the species concerned.

“(ii) For purposes of subparagraph (A)(ii), the term ‘essential for the conservation of the species’ means, with respect to a specific area, that the area is absolutely necessary and indispensable to conservation of the sustainable population of the species concerned.”

Such a change will help wildlife managers better define the purpose of identifying critical habitat.

I would briefly like to discuss other critical areas where we believe the true intent of the Endangered Species Act has been perverted and abused, and suggested resolutions for each. I would welcome questions on any of these issues and proposals, particularly those regarding the horrific misuse of science by Federal agencies charged with manatee protection.

### **Critical Natural Habitat**

Since 2001, the Fish & Wildlife Service has declared that hundreds, if not thousands, of man-made canals, channels, dredge areas, warm water discharges from power plants and factories, and even sewage treatment facilities are now critical habitat for the Florida manatee<sup>vi</sup>.

If you're unfortunate enough to have bought your dream home on a deep water canal, odds are your boat today sits on a trailer in your driveway, because your canal has become a Federal manatee "refuge."

Unbelievably, old, inefficient power plants – some listed as the worst polluters in Florida – are required to heat water inhabited by manatees during the winter. Power plants must generate electricity that's not needed, waste expensive fuel and pollute the air, if the water grows too cold for manatees to survive.

Is this what Congress intended?

The fact is, manatees wouldn't be in any of these man-made places if we hadn't built them. Lands and waters that were created by, or substantially altered by, human activity should not be considered "critical habitat."

This change, virtually a "technical correction," may be added to (II) above:

(II) the term ‘essential to the conservation of the species’ means, with respect to a specific area, that the area has those natural physical or biological features that are absolutely necessary and indispensable to conservation of the sustainable population of the species concerned.

### **ESA-MMPA Relationship**

If there is one reform to the Endangered Species Act we consider of greatest value, it is to clarify the relationship between the ESA and the MMPA. Today, the Service contends that the manatee could be fully recovered under the ESA, but “take” would still be prohibited under MMPA, which would mean no boating and no dock-building, despite recovery. The Service admits this relationship is illogical<sup>vii</sup>. *No kidding!*

An amendment stating that compliance with the ESA will be considered compliance with MMPA can resolve this illogical and damaging dilemma.

Pursuant to such a proposed amendment, applicants would not have to conduct an independent MMPA analysis to obtain an incidental take permit if the ESA’s Section 7 consultation is triggered. Specific language for such an amendment is included in our presentation package. For Florida, or indeed for any coastal state, this is without doubt our highest priority.

### **Exemptions for Economic Hardship**

Incredibly, the ESA contains no allowance for economic hardship. The Small Business Administration’s Office of Advocacy has repeatedly challenged the accuracy of Service economic impact statements, and the Service has ignored every single challenge<sup>viii</sup>. Factories have been shuttered. Marinas closed. Downtown redevelopment ruined. Jobs lost.

In several areas of Florida, there are overlapping State and Federal manatee zones. In one such zone, the Brevard County Barge Canal, Sea Ray boats asked for an exemption to planned slow speeds in a small area of the Canal so they could continue to test newly built boats. The State agreed, but the Service refused, stating it had no authority to give an exemption for economic hardship<sup>ix</sup>! Incredibly, the Service now refuses to rescind its duplicate zone, on the grounds that the State exemption to Sea Ray would unacceptably reduce protection.

By the way, more manatee carcasses have been recovered in Brevard in the years since the Federal zones went in than occurred before. You would be correct to question how an ineffective program provides “protection.”

Year <sup>x</sup>	Boat-Strike Mortalities
2001	7
2002	17
2003	8

Challenging the Service's lamentably bad economic impact statements is nearly impossible. While the Office of Advocacy is a valued friend of small business, when the Service rejects its findings, small businesses' only recourse is to sue under the RFA. That's a lengthy and costly process. The litigant will succumb long before the case is decided.

To remedy, it should be the Service's obligation to disprove Office of Advocacy findings.

## Measurable Rules & Goals

Since none of you are from Florida, you are probably wondering just what *do* we do to protect this highly endangered animal, brought to the brink of extinction by the slicing propellers of small, fast boats? The three-part answer is:

One – They aren't endangered

Two – Small fast boats have not and are not pushing manatees toward extinction, and

Three – Federal programs and lawsuits in Federal courts have done nothing to protect manatees, but they do harass, injure and sometimes even kill innocent Florida family boaters.

Seriously, the manatee becomes more endangered the farther you get from Florida. In truth, there are more manatees than ever, and their population over the past 25 years has been growing about 5 percent a year, which is several times faster than the human population of Florida is growing<sup>xi</sup>.

Just last year, the State of Florida's marine research institute concluded the manatee barely qualifies as "threatened," and that status has nothing to do with the consequences of deaths caused by boats. Rather, the manatee is possibly threatened by the long-term risks from those power plants that are literally keeping manatees in hot water. When those older, polluting, plants are inevitably shut down, how will manatees stay warm through the winter? Because of the power plants, the manatee's range has quadrupled or more in the past 30 years — and not surprisingly, the increase in population matches the increase in range. Many manatees now winter far north of their historic range, and many no longer migrate, as they all once did, when northern Florida waters cool. Without the power plants, half of manatees could die because of starvation and cold. By requiring power plants to warm these waters, Federal agencies are priming manatees for the biggest die-off in history.

Clearly, the future risk to manatees has nothing to do with boats, but in planning for this inevitability, the Service remains focused on preventing boat deaths. An increasing worry is the rising number of manatees killed by red tide events. In 2003, more manatees died from red tide than from boat strikes and the frequency of red tide episodes may be increasing.

Yet, the Federal response is not to focus efforts on power plant dependency and red tide deaths. It is to slow boats down. Chairman Pombo's excellent analogy about health care and the ESA fits perfectly with Florida's manatee madness. It's as if we decided to respond to the obesity epidemic by slowing down cars. Rather than invest in education and research, let's lower the speed limit and raise the fines! After all, if we reduced vehicular deaths, that would mitigate the deaths caused by obesity, wouldn't it?

The Service, in those lengthy biological opinions it just learned to prepare last year, and in its inches-thick Manatee Recovery Plan<sup>xii</sup>, claims that slow boat speed can "drastically reduce" take by boats and cites a small study as proof. But, they are making that up, and seriously misrepresenting the only quantitative study that even *suggests* slow speed is productive mitigation. More startling, the best scientific evidence says that slow speed can *exacerbate* risk, because manatees can't hear large vessels traveling at slow speed. So why does the Service insist on slow speed? Because a Federal judge told them to.

This past year in Florida, our Association and other organizations concerned about the lack of sound science, proposed a bill that would seek answers to many unknowns – such as how many manatees are there, how effective are speed zones, and how can we make speed zones safer for boaters and for manatees? The Florida Wildlife Commission and the Florida Marine Research Institute support the bill. But the Save the Manatee Club – one of the batch of regulatory extremist organizations whose lawsuits have caused this mess – opposed it. They actually

opposed a science bill! They actually opposed using the very measurable biological goals they helped write to determine whether more “protection” is needed in a specific area.

What does sound science say is causing manatee/boat collision deaths? According to a peer-reviewed study that the Service itself cites as evidence, almost all propeller deaths – which account for at least 35 percent of total watercraft deaths – are caused by vessels over 25 feet in length. Smaller boats have propellers too small to inflict fatal wounds<sup>xiii</sup>. Meanwhile, these same experts say they cannot tell the size of vessels that caused death by impact, which occurs about half the time<sup>xiv</sup>. (The other 15 percent of deaths are combination impact and propeller.)

Less than 10 percent of Florida boats are less than 25 feet in length<sup>xv</sup>. If we were serious about reducing boat strike mortality, why not focus on the 10% that we know cause at least one-third of deaths, rather than the 90% that cause an unknown and immeasurable portion of deaths?

Given limited resources, and a desire to do the greatest good, which option would you pick? Today, without a shred of evidence to prove their position, the Service continues to maintain that boat strike deaths are caused by small, fast boats<sup>xvi</sup>. It is a tragic waste compounded by what everyone in this room realizes. The second toughest job in the world is to get government to do the right thing. The toughest job is to get government to undo the wrong thing.

If the science and logic behind slowing down boats is lacking, there is even less evidence (none!) to connect dock-building to manatee mortality. Supposedly, if a dock is built, a boat will be moored to it and a boat might someday strike a manatee. But in almost every case, a family seeking a dock already owns a boat. And when a permit is denied to an honest contractor, odds are the frustrated homeowner will find someone else willing to build without it. In truth, the only reason the Service is denying dock permits is because they *can* do it, not because they *should* do it.

I believe that most docks in Florida are built *without* Army Corps permits, and because of increasing cost, complexity, delay and uncertainty, that number is trending up. Regulating docks to protect manatees has been a *mitigated* disaster.

The ESA says the Service must "show the relationship of [the best available science] to such regulation," but courts grant such incredible leeway that the requirement is toothless. In particular, the Service is under no obligation whatsoever to demonstrate that what it does works. Our recommendation is that except in emergencies, a Service mitigation strategy must be reviewed and approved by a balanced panel of experts and stakeholders *before* public hearings are held, and effectiveness evaluations of all regulations must be conducted at least once every five years.

I would welcome any questions about specific instances where the Service has misrepresented science, and how we found ourselves in this awful mess.

### **Presumption of Adequacy**

Another related problem is that the ESA places no limit on regulatory actions. More rules are always better, and no rule is ever undone. This is bad practice.

There are supposedly four separate manatee “stocks” in Florida, and in three of them, the Service’s own Biological Goals are being met or exceeded. Why then do we need more restrictions where the goals are being met? Why is the Service allowed to promulgate more restrictions in areas where rules are being met?

There should be a presumption that, if goals are being met for a species in a given area, then no

further restrictions are needed in that area. Florida is enacting exactly that language as I speak. Sample language is included in your packet.

### **Citizen Suit Provision**

Finally, our Association last year was forced to sue the Service because of its permit delays, and because of its illogical application of MMPA rules to sovereign state waters. The Service objects to our suit, claiming we don't have standing to sue outside an APA claim.

Currently, the courts have created a barrier forcing citizens to sue pursuant to the APA, which prevents such citizens from being made whole by recouping their litigation expenses.

The practical result of this is that citizens must "pay their own way" to compel the Secretary to perform his nondiscretionary duties under the ESA. This is an absurd result. Environmentalists who wish to have a species listed or critical habitat designated can sue and receive attorney fees, but a citizen wishing to have the clear and unambiguous mandate of Congress concerning interagency cooperation followed must pay the bill. Simply put, if you wish to expand the ESA, the government will foot the bill; however, if you wish to protect your private rights under the ESA, you better have deep pockets.

The practical solution to this judicially created barrier is to complete the efforts initiated by Congress in the Citizens Fair Hearing Act of 1997.

Your information packet also includes recommended language to effect such an amendment.

### **Summary**

What's my summation? It's that the manatee population in Florida is growing in spite of, not because of, the ESA. The Federal manatee program squanders millions of dollars a year on ineffective, even counter-productive, programs that are directed not by sound science, but by a Federal judge led by a Washington attorney.

I realize I'm preaching to the choir about the critical need for ESA reforms. On behalf of Citizens For Florida's Waterways and Florida Marine Contractors Association, thank you again for this opportunity to support your hard work.

### **ESA/MMPA Relationship Amendment**

Section 17 of the ESA states, "**except as otherwise provided in this chapter**, no provision of this chapter shall take precedence over any more restrictive conflicting provision of the Marine Mammal Protection Act of 1972." Therefore, even though the MMPA may be more restrictive and broader in scope than the ESA, the propose amendment would make the ESA paramount to the MMPA once section 7 ESA consultation is triggered. This would be true even if the provisions of the two statutes are in direct conflict or would produce different results. The MMPA could only be applied independently when the ESA's section 7 consultation has not been triggered; for example, the Service's creation of speed zones and manatee sanctuaries and refuges.

TITLE 16--CONSERVATION

CHAPTER 35--ENDANGERED SPECIES

Sec. 1536. Interagency cooperation

(a) Federal agency actions and consultations

(b) Opinion of Secretary

(4) If after consultation under subsection (a)(2) of this section, the Secretary concludes that--

(A) the agency action will not violate such subsection, or offers reasonable and prudent alternatives which the Secretary believes would not violate such subsection; **and**

(B) the taking of an endangered species or a threatened species incidental to the agency action will not violate such subsection; **and**

~~(C) if an endangered species or threatened species of a marine mammal is involved, the taking is authorized pursuant to section 1371(a)(5) of this title;~~

the Secretary shall provide the Federal agency and the applicant concerned, if any, with a written statement that--

(i) specifies the impact of such incidental taking on the species,

(ii) specifies those reasonable and prudent measures that the Secretary considers necessary or appropriate to minimize such impact,

~~(iii) in the case of marine mammals, specifies those measures that are necessary to comply with section 1371(a)(5) of this title with regard to such taking, and~~

(iii) sets forth the terms and conditions (including, but not limited to, reporting requirements) that must be complied with by the Federal agency or applicant (if any), or both, to implement the measures specified under clause (ii).

**Compliance with the requirements set forth in this subsection and in subsection (a)(2) of this section and any incidental take authorized thereunder will be considered compliance with the Marine Mammal Protection Act of 1972 [16 U.S.C. 1361 et seq.]; including but not limited to, sections 1361, 1371, and 1374 of this section and constitute a finding of negligible impact under that Act.**

### **Presumption of Adequacy ESA Amendment**

*Added language is in italics.*

(f)(1) RECOVERY PLANS-.The Secretary shall develop and implement plans (hereinafter in this subsection referred to as "recovery plans") for the conservation and survival of endangered species and threatened species listed pursuant to this section, unless he finds that such a plan will not promote the conservation of the species. The Secretary, in development and implementing recovery plans, shall, to the maximum extent practicable-

(A) give priority to those endangered species or threatened species, without regard to taxonomic classification, that are most likely to benefit from such plans, particularly those species that are, or may be, in conflict with construction or other development projects or other forms of economic activity;

(B) incorporate in each plan-

(i) a description of such site-specific management actions as may be necessary to achieve the plan's goal for the conservation and survival of the species;

(ii) *objective, measurable criteria which, when met, would result in a determination, in accordance with the provisions of this section, that the species be removed from the list. Wherever these objective, measurable criteria are being met, additional rules and actions will be presumed to be unnecessary. However, such presumption does not prevent the Secretary from addressing unique issues concerning a listed species within such an area;*

(iii) estimates of the time required and the cost to carry out those measures needed to achieve the plan's goal and to achieve intermediate steps toward that goal.

(iv) *provision for an objective, qualitative annual assessment of the effectiveness of promulgated regulations. This assessment must include a quantitative effectiveness evaluation of the listed species' mortality rate in each regulated area before and after promulgation of the rule.*

### **Citizen Suit Provision**

16 U.S.C. 1540(g)

1. (g) Citizen suits

(1) Except as provided in paragraph (2) of this subsection any person may commence a civil suit on his own behalf--

(A) to enjoin any person, including the United States and any other governmental instrumentality or agency (to the extent permitted by the eleventh amendment to the Constitution), who is alleged to be in violation of any provision of this chapter or regulation issued under the authority thereof; or

(B) to compel the Secretary to apply, pursuant to section 1535(g)(2)(B)(ii) of this title, the prohibitions set forth in or authorized pursuant to section 1533(d) or 1538(a)(1)(B) of this title with respect to the taking of any resident endangered species or threatened species within any State; or

(C) against the Secretary where there is alleged a failure of the Secretary to perform any act or duty under section 1533 of this title which is not discretionary with the Secretary;

(D) against the Secretary where there is alleged a failure of the Secretary to perform any act or duty under section 1536 of this title which is not discretionary with the Secretary;

2. (g) Citizen suits

(1) Except as provided in paragraph (2) of this subsection any person may commence a civil suit on his own behalf--

(A) to enjoin any person, including the United States and any other governmental instrumentality or agency (to the extent permitted by the eleventh amendment to the Constitution), who is alleged to be in violation of any provision of this chapter or regulation issued under the authority thereof; or and

(B) to compel the Secretary to apply, pursuant to section 1535(g)(2)(B)(ii) of this title, the prohibitions set forth in or authorized pursuant to section 1533(d) or 1538(a)(1)(B) of this title with respect to the taking of any resident endangered species or threatened species within any State; or

(C) against the Secretary where there is alleged a failure of the Secretary to perform any act or

duty under section 1533 of this title which is not discretionary with the Secretary (B) against the Secretary where there is alleged a failure of the Secretary to perform any act or duty under this title which is not discretionary with the Secretary;

### **FMCA Information Quality Complaint**

This Complaint against US Fish & Wildlife Service was addressed to Congressman Dave Weldon on March 8, 2004.

This Request for Correction of Information is Submitted Under DOI/FWS Information Quality Guidelines. Federal law prohibits agencies from “cherry-picking” information to support a pre-determined conclusion (Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 [Public Law 106-554]).

Unfortunately, distorted Service science claims are being used to withhold building permits from Florida marine contractors. Additionally, biased Service claims are being used to deny Floridians constitutionally guaranteed rights to access and use waters held in trust for all the people.

At the root is the Service’s belief that “manatees are especially vulnerable to fast moving power boats.” (Benjamin, 2003, FWS/R4/ES-JAFL)

This is a commonly held belief:

The simple rationale is that at reduced speeds, the force of impact will be less deadly, and manatees will be more able to avoid slower boats. (Florida Manatees: Perspectives on Populations, Pain And Protection; Thomas O’Shea, Lynn Lefebvre, Cathy Beck)

It is the foundation of the Service’s 2001 Manatee Recovery Plan, 3<sup>rd</sup> Edition:

Because watercraft operators cannot reliably detect and avoid hitting manatees, federal and state managers have sought to limit watercraft speed in areas where manatees are most likely to occur to afford both manatees and boaters time to avoid collisions.

But while this hypothesis has been repeated *ad nauseam* (there are 90 references to watercraft in the 3<sup>rd</sup> Edition), there is virtually no supporting science. We have been able to identify three studies that tested manatee/boat avoidance in the field. Two of these studies were included on the disks sent to [Rep. Weldon] by the Service — their compilation of the science they say they considered when drafting their Plans and Opinions. A third watercraft/manatee study by Dr. Edmund Gerstein was not included on the disks, but FWS staff personally communicate they are aware of this major study. (Manatees, Bioacoustics and Boats, American Scientist, Vol. 90, No. 2, March-April, 2002, Edmund Gerstein)

In sum, FWS science is based on just two small studies. Not only is the available science scant; FWS misrepresents what little there is. Formal ESA Section 7 Consultations written by FWS to permit or deny marine construction projects routinely exaggerate the scientific findings. Here is an example from a Sept. 12, 2003, Biological Opinion written by the Jacksonville Field Office for the Tampa Army Corps of Engineers (a continuation of the Benjamin citation above):

Manatees are especially vulnerable to fast moving powerboats. The slower a boat is traveling, the more time a manatee has to avoid the vessel and the more time the boat operator has to detect and avoid the manatee. Nowacek et al. (2000) documented manatee

avoidance of approaching boats. Wells et al. (1999) *confirmed* that at a response distance of 20 meters, a manatee's time to respond to an oncoming vessel increased by at least five seconds if the vessel was required to travel at slow speed. Therefore, the potential for take of manatees can be *greatly reduced* if boats are required to travel at slow speed in areas where manatees are expected to occur." (*my italics*)

The two sources cited by the Biological Opinion refer to one study — "Manatee Behavioral Responses to Vessel Approaches: Final Report," conducted near City Island in Sarasota, Florida in May, 1999, by Nowacek, Wells and Flamm, researchers with Mote Marine Laboratory and Florida Marine Research Institute. It was released in 1999.

FWS bases its entire manatee recovery strategy on a single paragraph:

The timing of responses to vessel approaches is of concern. At an average initial response distance of 20 m, the animal has less than 2 sec to respond to a planing vessel, and about 7 sec to respond to a vessel moving at slow speed. Clearly, boat speed plays a major role in manatee exposure to collision risk. High-speed vessel operations, especially in shallow water or along channel edges where the manatee cannot dive safely below the approaching vessel create a high-risk scenario (Wells, Novacek, 1999).

On the surface, this may seem to be definitive, but FWS, in relying on this snippet of comment, has omitted important details about the quality and quantity of the study data, which the authors themselves say was insufficient.

According to the researchers:

Too few high-speed trials were conducted to provide the basis for statistical comparisons to slow speed trials. Of the 12 usable (high speed) trials, six (50%) resulted in a response. However, all the high-speed trials that did not result in a response involved repeated passes 43 m to 77 m from a single individual located in a seagrass meadow.

In other words, out of 135 trials, just 12 were at high speed and six of those involved the fellow described above. Yet, this tiny sample is the scientific foundation for a Federal program that costs untold millions annually and jeopardizes the existence of more than 10,000 Florida marine construction jobs.

The FWS Biological Opinion flatly stated that slow speed would "greatly reduce take where manatees are expected to occur."

But the authors cited by FWS focused their concern about speed specifically on shallow waters:

...We know that the animals [in channels] were diving to depths greater than .69 m to 1.15 m. Such depths would place the manatees safely below the propellers and keels of most of the vessels operating in these waters.

The researchers concluded manatees in channels were reasonably safe from boat impacts, but FWS chose to omit this important exception from its Biological Opinion and from the Recovery Plan 3<sup>rd</sup> Edition.

Sadly, contrary to the research it cites, FWS regularly includes channels in its slow speed zones (Barge Canal, 100, 200 and 400 Cocoa Beach channels, the "emergency" Lee County zones, 60-foot deep waters of the St. John's, etc.).

The best available science — a decade-long study reported in 2002 — opposes such a practice.

A key management strategy used in Florida for protecting manatees over the past 20 years has been to slow boats in waters frequented by manatees by creating idling and slow-speed zones. This strategy can actually exacerbate the problem when it is implemented in turbid water conditions (which, along with tannin staining, are prevalent in Florida). (Manatees, Bioacoustics and Boats, American Scientist, Vol. 90, No. 2, March-April, 2002, Edmund Gerstein)

Somehow, despite its clear obligation to consider all relevant scientific information, FWS is silent on Gerstein's well-known study.

Perhaps most egregious, FWS' Biological Opinion misrepresents its cited research by inflating the conclusions of the authors. The authors did not conclude their research "confirmed" mortality could be "greatly reduced" by slowing down boats. Rather, their key conclusions were:

The effects of vessel speed, type and approach should be examined in greater (sic) detail relative to response distance and timing.

In light of the high degree of variability in the occurrence of responses to approaching vessels, further studies of how manatees detect vessels would appear to be warranted. Of particular interest would be studies in manatee habitats of transmission loss of sounds produced by vessels.

The researchers cited by FWS clearly recommended more studies, particularly of acoustics.

### **Other Evidence Also Contradicts FWS**

In the list of files provided to you by Service Regional Director Sam Hamilton was a 1994 test that viewed manatees and boats near a St. Pete power plant from aboard the airship Shamu.

This report, "Responses of Manatees to an Approaching Boat: A Pilot Study," was drafted by three FMRI researchers (Weigel, Wright, and Huff).

The study analyzed 16 boat passes: eight at slow speed, two at 32KPH and six at 48KPH. Despite the small sample, the researchers concluded that manatees became aware of the approaching vessel nearly three times as far away as the "initial response distance" of 20 meters (65 feet) cited in the FWS Biological Opinion:

At slow speed, the average distance to the boat when movement began was 52 meters...  
At 32kph, the average distance was 50 meters... and at 48kph, movements were initiated when the boat was an average of 58 meters away.

Clearly, a manatee may have much more time to evade than FWS states in its Biological Opinion. (Manatees can produce bursts of speed up to 15 MPH. A manatee that hears a boat from 58 meters away could move 60 feet at 10MPH before the boat reached the manatee start point. Even with two seconds' warning, a manatee moving only 10MPH can travel 20 feet in any direction. Obviously, there is no such thing as a recreational powerboat with a 40-foot beam!)

FWS is aware of the existence of this Pilot Study, yet this second study is never mentioned in the Biological Opinion.

Clearly, the difference between a 20 m and 58 m response time is hugely significant, even critical. How could FWS not consider and comment on this study? By what objective measure did they dismiss this report, and by what transparent process did they make their determination known?

Indeed, this critical issue looms even larger when Gerstein's study results are considered:

Prior to our studies, wildlife officials relied on anecdotal assumptions that manatees could readily hear as well as locate the sounds of slow-moving boats....

Consider the results from our boat-measurement studies simulating an encounter between an 8.2-meter boat and a manatee. When the boat approaches at high speed, the noise level crosses the manatees' critical ratio approximately 16 seconds before the propellers reach the hydrophone—about 198 meters away from impact. The noise of the same boat approaching slowly remains undetectable and does not cross critical ratios until the propellers are only 0 to 2 seconds away, less than 3.7 meters from impact. Under moderately noisy ambient conditions, the sounds associated with slow-moving boats can become acoustically transparent. (Manatees, Bioacoustics and Boats, American Scientist, Vol. 90, No. 2, March-April, 2002, Edmund Gerstein)

Gerstein's field tests in typically murky Florida water yield a result diametrically different from the "confirmed" 20 meters cited by FWS.

A similarly embarrassing lapse is the omission of any commentary on the seminal 1983 report by Margaret Kinnaird, "Evaluation of Potential Management Strategies for the Reduction of Boat-Related Mortality of Manatees," Cooperative Fish & Wildlife Research Unit, University of Florida, 1983. Her report (one of two she wrote that year), is also part of the documentation you received from Sam Hamilton:

Slow speed zones may be the most effective *short-term strategy* for reducing ... manatee/boat collisions. The establishment of slow and idle speed zones throughout all bodies of water important to manatees is an *unrealistic endeavor*. (*my italics*)

At what point did this short-term, ultimately unrealistic strategy, become the focal point of FWS mitigation? Even in 1983, the evidence did not demonstrate that speed zones were effective:

An initial evaluation of the first 13 sanctuary zones showed boat/barge collision deaths were infrequent in and around the regulated zones (within 0.5 km) both before and after sanctuary designation (Kinnaird).

What studies or evidence contradict Kinnaird? If such studies exist, why are they not a part of any FWS documentation? Where is the required transparent, objective, analysis of scientific information?

### **Identifying Causes of Watercraft Mortalities**

What, then, accounts for all the manatee watercraft mortalities? This is a question FWS is able to answer just 35% of the time.

Their own experts — ironically, the only watercraft mortality-related study cited in the Service's current Recovery Plan — state that only large vessels (over 25ft) cause propeller-caused mortalities. Propellers account for 35% of total manatee watercraft mortalities.

Propeller deaths comprise a significant portion of an “Analysis of Watercraft-related Mortality of Manatees in Florida 1979-1991 by Scott D. Wright and Bruce Ackerman, FMRI; Robert Bonde and Cathy Beck, Sirenia Project; Donna Banowitz, FMRI. Here is a key excerpt:

An important point by Beck et al. (1982) was that differences in propeller diameters were distinct between boats powered by inboard engines and boats powered by outboard or stern-drive engines. Therefore, they suggested that scar patterns measured on manatees could be used to determine the size of the watercraft. *The propellers of smaller boats (shorter than 7.3 m) with outboard and stern-drive engines were too small (average 16.4 cm) to inflict fatal wounds, although they probably caused most of the nonfatal wounds from propellers. (my italics)*

According to the Florida Office of Boating and Waterways, less than 10 percent of the vessels registered in Florida are more than 25 feet (7.6 meters) in length.

Therefore, more than one third of manatee vessel deaths (>35%) are caused by just 10% of boats.

When asked why FWS “mitigation” doesn’t focus on this 10% of boats responsible for at least one third of all watercraft deaths, the typical response is that such a focus doesn’t address deaths caused by impact.

Aside from missing the critical point — wouldn’t a reduction in propeller deaths in and of itself be beneficial — the Service’s own experts report they do not know what types of vessels are causing impact deaths.

The same study by Wright, et al. states:

Because few collisions are witnessed, the only available source of information on the size and type of the boats is the appearances of carcasses at necropsies.

However, there were no measurable features and therefore almost no indication of the size of the boat that caused the [impact] mortality.

FWS’ own experts conclude smaller boats cannot cause propeller mortality. FWS’ own experts state they cannot tell the size of vessels causing impact deaths. What, then, is the objective, transparent, scientific reasoning that leads FWS to seek to slow small boats wherever manatees are found?

FWS’ own researchers are in disagreement over the causes of impact-only deaths. Pat Rose, now the Manatee Club’s Tallahassee lobbyist, proposed in 1980 that slow-moving barges and tugs are responsible for many impact deaths. Kinnaird (1983) cites him along with others:

A large percentage of manatee boat/barge deaths result from internal damage without propeller wounds. It is likely that these deaths are caused by deep-draft boats operating in shallow water (Beck et al 1982). Rose and McCutcheon (1980) suggested that water depth should be maintained such that fully loaded barges pass safely over bottom-resting manatees in power plant intakes.

This suggestion neatly ties with the observations from the Wells/Novacek study, which found that manatees in channels are relatively safe from all but the largest vessels.

All these errors and omissions of fact raise a significant question. What percentage of the 10% of vessels that cause propeller deaths and a “large percentage” of impact deaths operate at slow speed normally?

How can a mitigation strategy based on slow speed zones reduce deaths caused by vessels that are already traveling slowly?

These very pregnant questions are ignored. But, as the saying goes, you can’t be just a “little bit” pregnant.

Our test results contradict several long-held beliefs that form the basis of current protection strategies. Manatees have good hearing abilities at high frequencies, however, they have relatively poor sensitivity in the low frequency ranges associated with boat noise. Ironically, manatees may be *least* able to hear the propellers of boats that have slowed down in compliance with boat speed regulations intended to reduce collisions. Such noise often fails to rise above the noisy background in manatee habitats until the boat is literally on top of the manatee. In addition, near-surface boundary effects can cancel or severely attenuate the dominant low-frequency sound produced by propellers. In many situations, ship noise is not projected in directional paths where hearing these sounds could help the animals avoid collisions. Our basic and applied research results suggest that there may be a technological solution to address the underlying root causes of the collision problem and resolve the clash between human and animal interests. (Gerstein, 2002)

Once again, the best available science — which FWS did not include in its evidentiary submission to you — flatly contradicts FWS policy.

The amazing conclusion is that FWS has absolutely no evidence to offer, much less any proof, that manatees are especially vulnerable to small, fast moving power boats. The Service has no proof that slow speed is an effective “protection” and its own experts, from data the Service relied upon to formulate its mitigation strategy, contradict the Service’s claims, as does research FWS has improperly ignored.

FWS has violated its Information Quality requirements. It has cherry-picked data to support a pre-determined conclusion. That pre-determined conclusion has dire consequences.

### **Compounding the Error**

FWS compounds its error by extending its errant conclusions into yet another realm — its insistence that the absence of speed zones means an area is “inadequately protected.” The result of this inadequacy is the denial of dock-building permits, because FWS argues that more boats equals greater threats.

But is this necessarily true? From Wright, et al:

[Boat registration] numbers indicate a potential increase in threats to manatees *but do not necessarily prove cause-and-effect relations in increased numbers of deaths*. One can only speculate about the effect of the increase in boating traffic on manatee movement, communication, and other key factors in manatee biology. (*my italics*)

Actually, we can do better than speculate. Using FWS’ analogy, if more boats equal more manatee deaths, then more boats should also equal more human deaths and accidents.

Just the opposite has occurred. According to FWC's Office of Boating and Waterways, the number of accidents per 100,000 registered recreational vessels has declined from 172.1 in 1996 to 125.6 in 2002 (the most recent data available). The fatality rate dropped from 10.6 in 1994 to 5.6 in 2002.

No doubt, there are those who will contend that boat injuries are down because boats are traveling slower in the 1/4 of Florida inland waters that are now slow speed manatee zones. This conveniently ignores the statistical fact that the zones have not decreased either the number, or the likelihood, of manatee/vessel mortalities. Moreover, if slower speeds truly accounted for a reduction in boating fatalities, then automobile deaths, by analogy, should be increasing, as highway speed and vehicle numbers have risen. But here, too, accident and fatality rates have declined even as speeds and numbers increased:

Highway accident statistics indicate that the annual number and rate of traffic accident deaths have declined to the lowest levels since the early 1960's. (US Department of Transportation website)

In the real world, there's not much support for a "more boats:more take" analogy.

Perhaps the ultimate irony is that the "confidence level" for a registration:take ratio is noticeably below the "confidence level" the Service seeks for the manatee recovery goals it has decreed. (The registration confidence level is below .90. The Service seeks a .95 confidence level for its goals measurements.)

In other words, the Service sets a higher standard to prove that its goals are being met than it does for the goals themselves. This is not merely a matter of "erring on the side of caution." As Gerstein points out, current Service policy, based on this flimsy scientific premise, likely exacerbates danger.

### **Requested Corrections**

- 1) FWS' justification for speed zones is insufficient and must be readdressed in light of all the best available scientific information.
- 2) FWS must withdraw its claim that small, fast powerboats are a substantial threat to the manatee.
- 3) FWS' own data require that it focus mitigation efforts on the 10% of vessels known to cause at least 1/3 of all watercraft mortalities. It has no data to justify mitigation of any other type of vessel by slow speed restrictions.
- 4) FWS' own experts disagree with its contention that registration:mortality is a viable measure. This premise, too, must be addressed or withdrawn.
- 5) FWS must address the fundamental issue that its mitigation strategy of slow speed restrictions is based on anecdote and not science. Why, for example, does the release of a boat dock permit require restrictions, and not, for example, research into improved hull or motor designs, acoustic warning, or other technology?

### **Summary**

In sum, neither the Service's own experts, nor a review of accident statistics, nor the Service's own standards for confidence levels supports a conclusion that more boats equals more deaths.

This shaky thread is the only link the Service has to its presumption that docks equals deaths.

Neither a review of all the experts FWS cites, nor a review of experts FWS ignores, supports the Service's belief that slow speeds provide better protection.

Nonetheless, the Service flatly maintains:

Based on the absence of protection measures (e.g., speed zones, signage, enforcement) for manatees, the Service believes that an increase in watercraft associated with the proposed actions [new docks] are reasonably certain to result in the take of manatees in the form of addition deaths and injuries. (Benjamin op cit)

The Service has failed to comply with the requirements of Federal Information Quality standards, and it has failed to comply with its own obligations to utilize the best available science.

FWS has failed to meet its own standards, and it has failed its duty to the people it represents. As you are aware, this failure has wrought terrible consequences in your district, where Brevard marine construction permits were denied for more than a year, and lately in Lee County, where a State court's removal of unconstitutional manatee zones has resulted in a new "area of inadequate protection" where permits are being denied.

While FMCA appreciates that a poorly articulated and unscientific legal settlement (*Save the Manatee Club v Ballard*) is the sole grounds for stopping dock construction, we find it distasteful that FWS is attempting to hide its legal troubles beneath a blanket of science fiction.

## Bibliography & Footnotes

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<sup>i</sup> *Save the Manatee Club vs. Ballard*. This case is before Judge Emmett Sullivan in the DC District. It was not filed in the Florida district(s) where the alleged harm took place.

<sup>ii</sup> Capt. Tom McGill, *The Florida Manatee Conspiracy of Ignorance*, RALCO Press, 2004

<sup>iii</sup> "radical go-fast boater" is a term coined by the Manatee Club to describe anyone opposed to its "go slow/no growth" demands. See <http://www.savethemanatee.org/news/mmpa.htm>

<sup>iv</sup> *The Size and Economic Impact of Florida's Marine Construction Industry, FMCA, Oct. 2003*

<sup>v</sup> see **Federal Register** / Vol. 67, No. 4 / Monday, January 7, 2002 / Rules and Regulations: "...watercraft-related "take" of manatees is a distant indirect effect of the authorization of a boat access facility. While we agree that construction of boat access facilities is a potential contributing factor to watercraft-related take of manatees, *in the vast majority of cases a direct cause and effect relationship does not exist* between the construction of a marina, dock, or boat ramp, and watercraft-related take of manatees."

<sup>vi</sup> see **Federal Register** / Vol. 67, No. 4 / Monday, January 7, 2002 / Rules and Regulations for a description of Brevard County Federal zones, which includes key industrial and commercial waterways and dredged water sports areas.

<sup>vii</sup> FWS Spokesman Chuck Underwood email to Dale Weatherstone, reported in *FMCA Newsletter*, Vol. 4, June, 2003

<sup>viii</sup> see as example [www.sba.gov/advo/laws/comments/fws03\\_0603.html](http://www.sba.gov/advo/laws/comments/fws03_0603.html): "Advocacy believes the Service has incorrectly certified the proposed rule under the RFA as not

having a significant economic impact on a substantial number of small entities. Advocacy recommends the Service publish an Initial Regulatory Flexibility Analysis ("IRFA") for public comment prior to publishing a final rule."

<sup>ix</sup> in **Federal Register** / Vol. 67, No. 4 / Monday, January 7, 2002: "Federal regulations provide exceptions to manatee protection area regulations only in limited circumstances (50 CFR 17.105(c)). We do not have the authority under our existing regulations to grant an exception based on economic hardship."

<sup>x</sup> Florida Marine Research Institute mortality database

<sup>xi</sup> Fraser, Thomas H. 2001. *Manatees in Florida: 2001*. A report to CCA Florida - March 29, 2001; see also [http://ccaflorida.org/updates/Jan02-why\\_manatee.htm](http://ccaflorida.org/updates/Jan02-why_manatee.htm)

<sup>xii</sup> Florida Manatee Recovery Plan, 3<sup>rd</sup> Edition, 2001

<sup>xiii</sup> *Analysis of Watercraft-related Mortality of Manatees in Florida 1979-1991* by Scott D. Wright and Bruce Ackerman, FMRI; Robert Bonde and Cathy Beck, Sirenia Project; Donna Banowetz, FMRI. Here is a key excerpt: "An important point by Beck et al. (1982) was that differences in propeller diameters were distinct between boats powered by inboard engines and boats powered by outboard or stern-drive engines. Therefore, they suggested that scar patterns measured on manatees could be used to determine the size of the watercraft. *The propellers of smaller boats (shorter than 7.3 m) with outboard and stern-drive engines were too small (average 16.4 cm) to inflict fatal wounds, although they probably caused most of the nonfatal wounds from propellers.*"

<sup>xiv</sup> Ibid.

<sup>xv</sup> Office of Boating & Waterways, 2004

<sup>xvi</sup> *Conspiracy of Ignorance*, page 128, citing the Recovery Plan, 3<sup>rd</sup> Edition, page 684