

# **Challenges to Sharing and Conserving Our Bays**

## **The results of a workshop to explore solutions**

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### **Introduction**

On January 7 and 8 of 2011, the Harte Research Institute of Texas A&M University Corpus Christi (HRI) hosted a workshop entitled – Challenges to Sharing and Conserving Our Bays. The Coastal Bend Bays Foundation (CBBF) and Texas Wade Paddle and Poll were initiating partners, whose March 8, 2010 forum on the topic clearly indicated the need for further discussion and engagement. The three initial partners were supported by Texas Nature Conservancy, Texas Parks and Wildlife Department, the Coastal Conservation Association of Texas and Patagonia. Their financial support made the workshop possible. The workshop organizers and all participants owe these partners a thank you for their contribution.

The workshop organizers began with the following premise:

*A growing and more diverse coastal user population is increasingly using Texas coastal inland waters for commercial and recreational pursuits. This sometimes results in conflicts among those users and can also damage the very resources they depend upon to sustain these activities. The workshop will identify and review these issues, and open a dialogue among various coastal stakeholders to collaboratively produce a list of recommendations as to what methods can be created and utilized to reduce these impacts, and allow for the sustainable use of Texas inland coastal waters.*

The workshop organizers agreed to the following goal:

*Assure quality outdoor recreation opportunities on Texas bay waters to all users with minimized impacts to natural resources and reduced user conflicts.*

The body and appendices of this report summarizes the results of the two day workshop. Extraordinary efforts were made to assure the one hundred participants invited to the workshop represented a broad cross-section of bay users. In more than twenty years of attempting such an undertaking, the author of this report has never seen a more deliberate, nor sincere effort to accomplish that end. The workshop participants are also to be commended. They gave freely of their own time and with rare exception, participated positively and with respect to all, even when views were diametrically opposed.

The focus of the workshop, from which data and information was extracted for this report came about in part because of the U.S. Fish and Wildlife Service (USFWS) findings and a growing concern among bay users that our success in developing and sustaining Texas fisheries, combined with a growing coastal population of users, is and will diminish the quality of fishing. Signs of this growing concern were manifest in the CBBF forum and related discussions noted above.

The growing potential for user conflicts was recognized by workshop participants. Over 80% of workshop participants felt strongly that user conflicts represent a current, growing and future concern. Those who agreed that it was a concern included an additional 8% of participants. A total of some 91% of all workshop participants were in agreement about the potential for growing user conflicts on Texas bay waters.

### **The Status of Texas Fisheries and Users**

Every five years the USFWS surveys the nation's hunters and anglers to determine how many are participating, how often they hunt or fish and how much they are spending. The data that come out of that effort is very important. It helps set the amount of federal dollars (generated by the excise taxes we all pay on sporting goods) that are annually returned to each state in the form of sportfish restoration funding. It is also a valuable planning tool for resource managers and the most objective means of assessing the economic impact of these activities across the country. It can also be a valuable

prognosticator of future trends and a guide to pro-active managers, wishing to deal with growing issues before options diminish.

The survey indicates that TPWD is doing an exceptional job in managing its coastal fisheries. Where other states are seeing a decline in participation, Texas is seeing significant increases. There is a growing concern that TPWD has done its job too well! While many other states have seen sharp declines in the number of users in coastal waters, Texas has generally seen the opposite. This has been a tremendous economic boost to the state and continues to build support for conservation. With success comes change and while most is positive, it has meant that more people are using the same space for a greater diversity of uses. In other states like Florida and California, such issues remained unaddressed in some areas, until options were few. Hopefully, Texas can avoid such situations.

The American Sportfishing Association (ASA) takes that data and compiles it into a report that compares all of the information between states. Go to [www.asafishing.org](http://www.asafishing.org) to learn more about the ASA and find more detail about the survey results.

The comparison between the 2001 and 2006 survey (the most current published) are eye opening and revealing about the state of saltwater angling, especially in Texas. First of all the number of saltwater anglers in our state have grown by 286,650 anglers, a 25% increase, since 2001. While it may not be a very realistic way of looking at it, that growth could be expressed as an increase of 4,777 new anglers a month, every month for the past five years. The number of days spent fishing by both old and new anglers has grown by 50% to a total of 15,143,000 days fishing. Not only are there more anglers but they are obviously fishing more. Is this good news or bad news? From the individual angler's perspective it may not seem like good news because it means more competition for fish and places to fish.

A note of explanation about the differences between the USFWS survey and the surveys of anglers taken routinely by TPWD is helpful in illustrating why some trends may not be reflected in both surveys. The USFWS survey is a phone survey and reaches a broader audience than TPWD, where surveys are done at boat ramps. Boat

ramp anglers are primarily power boat anglers and others like kayak and wade anglers are missed.

A review of Texas fishing license sales would seem contradictory as well. Looking only at saltwater license sales does not necessarily reflect the USFWS results. The array of license options and modifications of them over the last ten years confound easy comparison. One explanation that has some traction is that a growing shift from freshwater to saltwater fishing is masked by combination licenses. It would help explain differences but no definitive analysis is available to confirm or offer alternative explanations.

It is good news in one important sector because the economic contributions of recreational fishing translate into billions of dollars of positive economic benefit for Texas. There are so many pressures on coastal resources these days that we need good reasons and lots of support to make sure that our bays remains healthy and productive and full of fish. Nothing seems to speak louder these days than dollars and the economics of saltwater fishing in Texas is a big shout because of the phenomenal growth we have seen over the last five years. It is important that political leaders and resource managers hear it.

All of these new Texas saltwater anglers buying equipment and all the things they need to fish have increased retail sales in our state by 32% (\$319,000,000). Those sales have boosted the amount of taxes collected by 24% or a total \$63,000,000 over those collected in 2001. The impact on the Texas economy reflects that positive input.

Another way of measuring that economic impact is in the number of new jobs all this economic activity has created. Between 2001 and 2006 an additional 5,221 jobs have been created by saltwater fishing here in Texas. Basically, amounts to over 1,000 new jobs each and every year over the past five years. That is a claim that not too many industries can make these days.

Today the annual economic impact of saltwater fishing on the Texas economy is a whopping \$1.7 billion. That is an increase of \$0.4 billion a year compared to 2001.

How does Texas compare to other states? In a word, we are in a class of our own. Both Florida and California, the other two of the big three saltwater fishing states, saw an 18% decline in anglers over that same period. In the Gulf of Mexico Louisiana saw a 42% decline, Mississippi a 38% decline and Alabama an 8% decline in anglers since 2001. Of the 23 states that support saltwater angling only four other states showed positive gains over this period – Delaware, Georgia, Hawaii and Maryland. When added together the numbers of saltwater anglers in those states only approach half the numbers in Texas. As noted initially what has happened in Texas is a phenomenon seen nowhere else.

### **The Price of Success**

As big as Texas bays and the Laguna may seem, they are finite and they do have limits. Just as we have to impose limits on the fish we remove from coastal waters, we are approaching limits on our uses of these waters, if we are to maintain the quality fishing and on-water experiences we now enjoy. How close we are to such limits is difficult to estimate. Many feel such a time is far in the future, if ever a concern. Others see a more imminent arrival. Little data is available on which to build a defensible prediction.

We can look at other states, Florida in particular, and see what is happening there. It is a possible indicator for Texas. The USFWS indicates that fishing effort (number of days on the water) grew by 50% over the five year period of their survey. The numbers of boats that can operate in very shallow water are a growing part of the coastal market, according to some boating industry representatives. The number of kayak fishermen has grown explosively over the last fifteen years.

A 2000 report on boat sales stated:

*The market for outboard motor-powered boats is highly fragmented, with some segments encountering flat or declining demand and several other product segments exhibiting growth. Measured in deliveries to dealers, bass boats, the single largest outboard category, were down 10%, but center console and “walkaround” fishing boats, often used on larger bodies of water and on the ocean, were up as much as one-third.*

This is an indicator of the continued shift of boating anglers to marine type boats.

All indicators seem to tell us this is a growing concern. The success of our fisheries management efforts have been a boost for Texas and her anglers. To sustain those successes TPWD managers must have a full tool box of options to address the concern for conflicting uses of coastal waters. We are in an enviable position of having many options and few limits at this point. Hopefully, this workshop has produced an array of tools: recommendations that managers and users alike can make use of to sustain Texas fisheries well into the future.

### **Workshop Participants**

Extraordinary efforts were made to assemble a true cross-section of bay users that focus on fishing. The goal was to have 100 workshop participants, representative of Texas' bay anglers. That number of participants was the limit facilities at the Harte Research Institute could accommodate. A broad invitation was issued that included a pre-workshop survey to help guide the selection process towards the stated goal.

Just how successful organizers were in assembling a true cross section of users is debatable as we do not have a scientifically validated assessment of the composition of users here in Texas. Considering existing information, the effort was successful in assembling a diverse group of bay users that is reflective of users as a whole. The author has participated and organized many such meetings over twenty years and this was one of the most successful to date. The polling results from workshop participants certainly reflect the diversity of bay users. They include non-power boat users that are not typically surveyed in Texas and this provides input not typically available in past efforts.

Some 83 participants of the 120+ invitees did attend. Table 1 provides a summary of participants by how they access coastal waters, what their primary reasons are for doing so and where they generally access Texas' coastal waters.

<b>ACCESS METHOD</b>	WADING	POWER BOAT	KAYAK	AIR BOAT	OTHER		
<i>NUMBER</i>	7	47	22	6	1		
<i>PERCENT</i>	8	57	27	7	1		
<b>ACCESS REASON</b>	FISHING	HUNTING	BIRDING	RECREATION	GUIDE	OTHER	
<i>NUMBER</i>	61	3	3	3	9	4	
<i>PERCENT</i>	73	4	4	4	11	5	
<b>PRIMARY BAY ACCESS</b>	GALVESTON	PORT O'CONNOR	SAN ANTONIO BAY	ROCKPORT	PORT ARANSAS	UPPER LAGUNA MADRE	LOWER LAGUNA MADRE
<i>NUMBER</i>	1	3	5	4	49	17	4
<i>PERCENT</i>	1	4	6	5	59	20	5

**Table 1. Profile of workshop participants by access methods, primary reason for accessing coastal waters and the primary location where they do so**

Workshop organizers met with a boating manufacturer's lobbyist and directly with several boating manufacturers in an effort to solicit their participation. Invitations were not accepted due to conflicts. Another group of users were also sought to participate, tournament fishermen, but organizers were not successful. Two saltwater tournament directors were invited and asked to assist in contacting participants without success. Several guides that do work with tournaments did participate.

## **Workshop Outcomes**

Workshop organizers had several goals in mind as outcomes of the workshop. First, open a dialogue between users as a means of establishing a means of exchanging views and working together in a positive manner. Second, using the combined experience of participants, develop a list of best practices to share with all users to help

reduce conflicts. Third, generate a list of recommended actions for TPWD and others to reduce both current and potential user conflicts.

## **Best Practices Supported by the Workshop**

The following fourteen best practices were compiled to provide general guidance to users of coastal waters. Workshop organizers hope to work with other conservation organizations to distribute this list as widely as possible as a means of making our use of Texas coastal waters safer and more enjoyable.

**Know the laws:** Know and respect the current boating and fish and game regulations.

**Pack it in – Pack it out:** Leave the resource cleaner than you found it.

**Help people in trouble:** Always render aid to those in trouble in bay waters.

**Respect others and the resource:** Everyone has the right to utilize the bay but no one has the right to monopolize it. Do not let convenience override courtesy and conservation. Avoid short cuts and thrill rides through known fishing areas.

**Give plenty of space to others:** Maintain an adequate distance between yourself and other users. Base your distance on your craft's size and level of disturbance to others. Give other users more space than you would want for yourself.

**Know before you go:** To avoid habitat damage and user conflicts, be aware of the area you are entering. Scan the area for other users before entering and know the depths, winds and tides before entering. Plan your exit before you enter.

**Know your equipment's capabilities:** If you are too shallow to get a boat on plane without causing damage to the bay bottom – pole, troll, push, or drift to deeper water.

**Do not encroach unless invited:** Do not approach if you see another boat catching fish on a flat or working a school of fish in shallow water. (A bent rod does not constitute an invitation).

**Travel in deep water:** Do not run watercraft close to shorelines if you can avoid it. These are prime fishing areas and critical bird and wildlife habitat.

**Maintain your boat:** Your stranded boat is someone else's inconvenience.

**Stay to the edges of channels.** Do not anchor or hang out in the middle of channels where boat traffic is likely.

**Make your presence known** - Kayaks and wade fisherman make yourself noticeable to boats as they approach.

**Do not use a boat under power to locate, herd, rodeo or otherwise disturb gamefish in shallow water.**

**Boater education may not be required but it should be mandatory for all boaters, powered or otherwise interested their safety and enjoyment of coastal waters**

## **Plenary Session Summary**

The Friday afternoon session of the two day workshop featured experts on habitat, wildlife and user conflicts, as well as, panels of user group representatives to provide perspective on the workshop topic of user conflicts. Additionally, some of the key points made by presenters were put to the workshop participants in the post workshop survey to seek their views on the presentations. If you review the survey results included here as an appendix, you will note that on some questions some participants did not complete all questions. Workshop participants and survey participants are used interchangeably in the report. There is no other way to present the survey results without unduly complicated and confusing verbiage.

The following is a summary of those survey results, using the exact wording of the survey question in italics. In some cases additional explanation is included.

Robin Riechers, Texas Parks and Wildlife Dept., Director of Coastal Fisheries, discussed population trends, demographics and license sales for saltwater fishing in Texas coastal waters.

*We heard that fishing effort, based on boat ramp creel surveys, is relatively flat over the last few years. Creel surveys do not include fishermen unless they use boat ramps. How do you feel about the number fishermen on the water in your area over the last five years?*

Some 62% felt that there were a lot more fishermen than reported. The view being that TPWD surveys were missing many anglers because of the growing number of non-traditional users, like kayakers that do not typically launch at boat

ramps. The presenter agreed that TPWD should review survey methods to resolve this concern and potential under-counting of anglers

Perry Trial, Texas Parks and Wildlife Dept., Corpus Christi Bay Ecosystem Leader, discussed TPWD seagrass protection efforts and the results of those efforts, in the Redfish Bay State Scientific Area (RBSSA).

*We heard that education, regulation and enforcement have made a difference in sea grass protection in the Red Fish Bay State Scientific Area (RFB) over the last five years as opposed to the voluntary measures beforehand. Do you feel that we are doing enough to protect this resource?*

Some 40.3% of respondents felt enough was being done in Redfish Bay, but not in other areas. An equal number, 40.3% of respondents, felt more should be done everywhere

Fred Herling, Everglades National Park, chief planner at Everglades and Dry Tortugas National Parks, provided a presentation which discussed the rationales for, and the process of, recently establishing the Snake Bight Pole and Troll Zone in Everglades National Park.

*We heard about the Florida, Snake Bight Pole and Troll Zone, with access/egress lanes relative to prevailing winds. Should Texas / TPWD / GLO develop a demonstration pole and troll zone to test and evaluate the effectiveness of such a concept in reducing impacts and conflicts, improving fishing opportunities, and to evaluate the concept's acceptance by the angling community?*

41.7% of workshop participants filling out the survey felt TPWD should implement it on a test case basis subject to sunset review to gauge its effectiveness in dealing with user conflict issues and possibly to improve fishing. 19.4% of all workshop participants felt TPWD should study the effectiveness of this strategy in other areas to determine its relevance and potential effectiveness in dealing with conflict issues and possibly improve fishing. A case could be made that the 19.4% supporting further study were not necessarily supportive of a test area or areas, just additional investigation. On the other hand, such investigations can include test or experimental areas (discussed in the workshop) an interpretation of support for some level of experimentation. Regardless, general support for some level of similar experimental or test area would appear to range from a minimum of 42% up to a maximum of 61%, most likely somewhere in between. Some 25% of participants responding to the survey clearly felt this strategy should not be pursued.

Support for a specific proposal was less ambiguous and negative. Proposals to create no wake zones or use color coded indicator poles to close areas according to tide levels were two specific recommendations discussed in smaller workgroups and had sufficient support to come to full workshop. They were not well supported in the summary session (all workshop participants present) and a strong negative (60% to 70%) response was noted for those proposals when polled. The post workshop survey reflected the same results and subsequently, they were dropped from the report.

Dr. Andy Danylchuk, University of Mass., Amherst, Assistant Professor of Fish Conservation, provided a presentation of his research of best practices for the catch and release of Bonefish.

*We heard that fish handling methods have an impact on the survival prospects of released fish. Which of the following statements best fits your thoughts on this subject?*

86.1% of respondents felt that it was an important aspect of angling education and TPWD should promote it.

Robert Goodrich, Texas Parks and Wildlife Dept., Assistant Chief of Fisheries Enforcement discussed various Texas regulations pertaining to boating safety, fish harassment, seagrass protection, and the "sportsman's rights act", and the difficulties of enforcing some aspects of those regulations

*We heard that current regulations related to Sea Grass Destruction, Boating Safety, Fish and Wildlife Disturbance are vaguely worded making enforcement difficult. Which of the following statements best fits your thoughts on this subject?*

63.9% of participants felt that current regulations should be reviewed and reworded. TPWD law enforcement representatives reviewed the difficulty and complexity of current law but also stated that an acceptable procedure had been developed that was generally accepted by local judicial forums. Several options were discussed as alternatives. One especially supported by game wardens was a simple prop up requirement in designated areas. It would be easy to see from a distance making enforcement easier and the case to be made very clear – either your prop was up, or not and no grey areas for interpreting. See following question and resulting opinion

*The Law Enforcement presenter stated that using prop up regulation in protected seagrass areas (like Redfish Bay) would be easier to enforce than existing regulation.*

Some 45.8% of workshop participants would support such a change and 31.9% of participants felt the existing regulation was adequate. Some 18.1% were not sure but were supportive of something simpler than existing regulation

*We heard that citizens can provide video evidence of violations and in cases of sea grass, physical evidence (roots). Do you yourself foresee attempting to provide evidence to game wardens and ultimately act as a witness in court to help enforce these regulations as they stand?*

Interestingly, responses were split relatively evenly between no, I do not plan to attempt to (26.8%); I would attempt it but it sounds too difficult (31%); and, yes I plan to attempt to do this (25.4%)

Additionally, David Newstead, Environmental Scientist, Coastal Bend Bays and Estuary Program, discussed his studies of colonial bird rookeries in Coastal Bend bay waters, and the decline of nesting bird populations in this area. There were numerous recommendations that came forward from workshop participants directly related to this speaker's very informative presentation. A significant number of recommendations came forward from the workshop in support of protecting rookery resources. Some items that saw 70%+ support was to protect rookery islands, improve signage and redefine the language in law to make enforcement of protection easier. See the workshop results section for more detail.

A final general survey question asked participants about their overall impression of the workshop. 52.1% of participants felt it was worthwhile (well done) and *hoped* for a positive result. 38% also felt it was worthwhile and *expected* a positive result.

## **Workshop Recommendations**

Following a plenary session on the first day of the two day workshop, participants were divided into four roughly equal sized working groups. Participants were sorted into user preference groups according to their answers to a survey that was completed and submitted before the workshop. The goal was to assure representation of the various user groups in each of the four workgroups.

Moderators and scribes were provided guidance in soliciting the groups input on four topic areas: Habitat degradation and damage; disturbance of fish, wildlife and birds; safety concerns for bay users; and, user conflicts between bay users. A series of preliminary questions were used to illicit concerns and issues from participants and direct discussion towards developing recommendations to address those concerns. Each workgroup then reviewed recommendations they had generated and those that

receiving roughly seventy-five percent support from the workgroup were forwarded to the concluding session for review by the entire workshop.

The original intention was to review all recommendations seeking the groups input as to value and priority of each recommendation. There were too many (a positive outcome) to review in the time available and all agreed that a post-workshop survey approach to allow each participant to review each recommendation and also provide their input as to priority of implementation for it.

There were many recommendations of an educational nature. On review it seemed more informative to combine them into a separate section. This provides a more comprehensive approach and a separate section was added to the end of the summary assessment.

### **Habitat Degradation and Damage**

Soliciting workshop participant's opinions on the broad topic of habitat degradation and damage was chosen as a means of initiating workgroup discussion. It was felt that the topic would be one where workgroup members were likely to find general agreement and that would act as a positive model for later more difficult topics. This was successful. Twelve of sixteen recommendations were supported by 60%+ of all participants. The highest levels of support were for maintaining freshwater inflows (86.3%); better planning by coastal communities to improve storm water management (72.6%); and, increasing enforcement of existing laws and regulations relating to habitat damage (78.1%).

A second tier of recommendations received between 60% and 70% support. They included:

*Improve fishing maps with accurate depths, marked running lanes and hazard indicators (67.1%).*

*The state should retain ownership of harvested oyster shell for restoration (66.7%)*

*Improving and clarifying language in existing laws related to habitat damage (64.4%)*

*Open the eight historic passes that have been closed, to improve water circulation (64.9%)*

*More signage marking ingress/egress [to grass flats] (63.9%)*

*Development of a standardized system of colored tide level indicators for informational (non-regulatory) purposes (63%)*

Only one proposal received 50% to 60% support. That was to expand seagrass uprooting laws on an ecosystem /ecological basis (58.3%).

Recommendations regarding habitat degradation and damage that were considered of highest (50%+) priority, included the following:

*Maintaining freshwater inflow*

*Increasing enforcement of existing laws and regulations relating to habitat damage*

*Opening the eight historic passes*

*Developing a standardized system of colored tide level indicators for informational (non regulatory) purposes*

*Improving and clarifying language in existing law relating to habitat damage*

*Providing more signage to mark ingress/egress routes to flats*

*Expanding seagrass up-rooting laws on an ecosystem/ecological basis*

## **Disturbance of Fish, Wildlife and Birds**

This was the second of two general topics related to user impacts on the animals encountered by bay users. No wildlife other than birds was the subject of workgroup participant's recommendations.

This was not a lack of concern about disturbing fish by actions like "herding", defined as circling shallow areas in tightening pattern to concentrate fish, and then quickly casting into the concentration. Considerable discussion about disturbance of fish was forthcoming but little agreement reached on what constituted fish disturbance. Many agreed they knew it when they saw it, but could not translate that into a recommendation. Law enforcement representatives discussed the difficulty in defining such activity for enforcement purposes. No enforceable regulation was currently useful in preventing the harassment of fish.

Nearly all participants expressed concern for rookery islands and birds, particularly during nesting season. Protecting these islands was of great concern to 63.9% of participants. Those recommendations that received 60% support, or better, and were considered high priority included the following:

*Enforce and educate people in existing regulations (84.9%)*

*Improve signage visibility from a distance: devise a symbol representing a rookery (80.8%)*

*Support of signage to make active colonial rookery islands off-limits during nesting season from February to August (75.3%)*

*Clarify language to include no disturbance for adult birds on nests as a means of simplifying enforcement in Section 64.002 a (3) of the Parks and Wildlife Code (71.2%)*

Those recommendations that received 50% or greater support include the following:

*100 meter buffer zones [closed to boating] outward from active rookery island edge during nesting season (57.7%)*

*Require beneficial use of dredge material to build new habitat (57.5%)*

*Fine tune fish disturbance law to some enforceable measure (52.1%)*

Some 61.1% of participants either agreed that access to rookery islands should be closed seasonally (34.7% fully supported) or agreed in part (26.4%) with closure. A definition of what closure meant was not generated and specific proposals did not generate broad support.

Those recommendations that were considered a high priority (50% + support), included:

*Enforce and educate people in existing regulations*

*Improve signage visibility from a distance: devise a symbol representing a rookery*

*Support of signage to make active colonial rookery islands off-limits during nesting season from February to August*

*Protect existing rookery islands and the wildlife that depend upon them*

*Clarify language to include no disturbance for adult birds on nests as a means of simplifying enforcement in Section 64.002 a (3) of the Parks and Wildlife Code*

*Require beneficial use of dredge material to build new habitat*

*100 meter buffer zones [closed to boating] outward from active rookery island edge during nesting season*

*Fine tune fish disturbance law to some enforceable measure*

## Safety Concerns

This was one of two topics dealing directly with bay user conflicts. Despite some conflicting interests, more recommendations came from this work session than any of the others –eighteen in total. It was clear from general discussion that participants felt strongly about safety on the water, but were not necessarily willing to assume additional individual responsibilities to assure it. Only one recommendation received 80% support: the creation of public service announcements for coastal boating safety (80.6%).

Several recommendations did achieve 60% to 70% support and included the following:

*Distribution of safety and environmental awareness packets to each participant of fishing tournaments during registration (68.5%).*

*No anchoring or blocking narrow channels (65.8%)*

*Create a minimum lighting requirement for kayakers to enhance safety (64.4%)*

Those recommendations that garnered from 50% to 60% support included the following:

*Require some form of kayak and paddle-driven vessel registration, either through boat sticker or paddle stamp (58.9%)*

*Enforce boat weight, horsepower and lighting regulations (57.5%)*

*Do not operate boat steering or throttle with feet, excluding airboats (52.1%)*

*Kayakers need to have proper boater education (53.4%)*

*Mandatory safety packages distributed with kayak sales (52.1%)*

One recommendation to create kayak crossings in major channel and high areas garnered 70.9% support when the responses for completely agree (40.3%) and agree but not entirely (30.6%) were combined. Discussion about what that might mean as regards no wake zones or signage or some combination, was much debated but no clear proposal gained broad support.

The highest priority actions to improve safety (50%+ designating them a high priority) included the following:

*No anchoring or blocking narrow channels*

*Create public service announcements for coastal boating safety*

*Distribute a safety and environmental awareness packet during tournament registration*

*Kayakers need to have proper boater education*

*Create a minimum lighting requirement for kayakers to enhance safety*

*Require some form of kayak and paddle-driven registration, either through boat sticker or paddle stamp*

## **User Conflicts**

There were nine recommendations sent forward from workgroups to the full workshop for consideration. The low number resulted from the fact that many related recommendations were already covered under previous topics and this was where the most disagreement about specific recommendations became evident. Low impact fishing areas, no wake zones and restrictions on kayaks and airboats of various types garnered sufficient support in one or more of the four working groups to bring to the summary session but did not have enough support to be included in the post workshop survey. This was not unexpected as significant efforts were made to balance both workgroups and the workshop participants to reflect all major user groups.

One of the most significant recommendations to come out of this exercise was not a recommendation but rather an acknowledgment, and a significant one to the very reason the workshop was held. Over 80% of workshop participants felt strongly that user conflicts represent a current, growing and future concern. Those who agreed (but not strongly) that it was a growing concern included an additional 9.6% of participants. A total of some 90% of all workshop participants were in agreement on this point.

Those recommendations that did make it through the process to garner 70% or better support in a workgroup, generally had very strong support by the workshop as a whole, and included:

*Develop a website (“know before you go”) containing a list of best practices on the water with localized information for education purposes (79.5%)*

*More funding for game wardens (but not decreasing funding from other TPWD sources); increase fines and direct money back to TPWD (74%)*

*Collaborate [outside partners] with TPWD on targeted public safety announcements - radio, TV, YouTube, etc (72.6%)*

*[Provide] More information centers near high use areas (70.8%)*

*Localized education efforts - town meetings, boat shows, etc (70.8%)*

Those recommendations that received between 70% and 50% support included:

*Add scenarios and examples into safety brochures to increase understanding (67.6%)*

*Develop a website (“know before you go”) containing a list of best practices on the water with localized information for education purposes 67.1*

*More launch/access points outside high use areas (58.9%)*

*Education for non-residents (53.4%)*

The recommendations that received support as high priority (50% or greater), included:

*More funding for game wardens (but not decreasing funding from other TPWD sources); increase fines and direct money back to TPWD*

*Education for non-residents*

*[Provide] More information centers near high use areas*

*Localized education efforts - town meetings, boat shows, etc*

*Collaborate [outside partners] with TPWD on targeted public safety announcements - radio, TV, YouTube, etc*

## **Education and Outreach**

Education based recommendations were forwarded by every workgroup and under each of the four topic headings. All participants were in general agreement that education efforts were a key element in managing real and potential user conflicts, as well as, impacts on habitat and wildlife.

There was general agreement with the view of one presenter that users could be sorted into one of three groups. A significant number of users were just ignorant. They were unaware that their actions were causing harm or negatively affecting other users. A second significant group was broadly knowledgeable and generally avoided damaging habitat or wildlife and tried to be considerate of other users. Finally, there was a third group that typically felt themselves above the law and any concern for others -doing what they wished, when they wished. Education and outreach efforts could have good effect on two of the groups and law enforcement was a key to dealing with the latter.

Regulations can also be an important educational tool and where other educational efforts failed, was a viable option. Difficulty of enforcement was a concern but the issues of habitat and fish disturbance, as well as, user conflict were areas where clear,

unambiguous situations is more the norm, than exception. Because something may not be readily enforceable does not mean it is not of value, especially if it is effective in helping users in the first two groups of users take appropriate action. Nothing but a ticket or other such action much influences the third group of scufflaws.

The most interesting educational recommendation that came out of the workshop was a recommendation requiring mandatory boater education, which was supported by 83.3% of participants. Some 78.1 % of participants supported recommendations to require boater education certificates to register a boat. Targeting education (esp. for habitat damage issues) around high use and holiday periods received 75% support.

Additionally, focusing education efforts locally, like town halls and at boat show saw 70.8% support from the workshop. Two other recommendations addressed concerns about non-resident boaters and recommended special education efforts (68.1%) and / or such efforts linked to boater registration and retailers (69.6%).

## **Appendices**

### **Appendix I – Friday Agenda**

#### **Challenges to Conserving and Sharing our Bays**

***January 7-8 2011 – HRI Building Room 123 TAMUCC Campus***

12:00 – 1:00 Registration and Sign-in

1:00 – 1:15 Welcome and introduction to workshop, logistics and house-keeping

#### ***Building the Knowledge Framework – what we know and do not know***

1:15 – 1:45 Robin Riechers (TPWD): What we know about Texas coastal water users and TPWD's authorities regarding uses and users

1:45 – 2:10 GLO: Amy Nunez and Rene Garcia representative to discuss authorities and polices

2:10 – 2:30 Perry Trial (TPWD) Evaluation of Regulatory Protection of Seagrasses in Redfish Bay, TX

2:30 – 3:00 David Newstead (CBBEP) – Issues related to bird rookery islands

3:00 – 3:30 Fred Herling (NPS): User issues in the Everglades and Management actions to address them and related conservation issues

3:30 – 4:00 Break

***Identifying Issues and Concerns – Building a Framework for Discussion***

4:00 – 4:20 Larry McKinney (HRI): A Quarter Century of Observations, Actions and Reactions in Managing Resource Users

4:20 – 5:30 A Panel presentation and Discussion by Representatives of Users – Concerns, Issues, and Goals – Coastal Bend Guides, Poling Guides, Kayakers, Waders, Tournaments, and Airboats

5:30 – 6:00 Andy Danylchuck: Putting Texas Issues in context - Experiences from around the country and the world.

6:00 – 6:30 Wrap Up and Charge for the Saturday Workshop

**Appendix II – Saturday Agenda**

**Saturday Agenda**

7:30 Late registration

8:00 – 9:00 **TPWD and GLO – enforcement of existing regulations regarding habitat destruction, wildlife harassment and angler/hunter harassment, and related issues**

9:00 – 9:30 **Work group instructions and sorting out into groups**

9:30 – 10:15 **Session One: Habitat damage and degradation** - Concerns pertaining to user impacts on bay natural resources i.e.: prop scarring, etc)

*Define habitat damage from your perspective*

*Identify issues and their causes*

*What actions can individuals take to reduce damage*

*What management actions could TPWD take or consider*

10:15 – 11:00 **Session Two: Disturbance of fishery, wildlife and birds** - Concerns pertaining to bay user impacts and disturbances of

inland fishery, wildlife and birds i.e.: colonial bird rookery disturbance)

*Define disturbance*

*Identify issues and their causes*

*What actions can individuals take to reduce disturbance*

*What management actions could TPWD take or consider*

11:00 – 11:45

**Session Three: Safety Concern - Concerns** pertaining to unsafe bay situations you may have encountered or foresee

*Identify issues and their causes*

*What actions can individuals take to improve safety*

*What management actions could TPWD take or assess*

12:00 – 1:00

**Lunch break**

1:00 – 3:00

**Session Four: User Conflict Issues** - Issues related to bay user to user interactions which have or may result in conflicts

*Are user conflicts a current concern, a growing concern, a future concern or no concern at all?*

*Identify user conflicts and their causes*

*What actions can individuals take to reduce existing or potential conflicts?*

*What management actions could TPWD take or address real or potential concerns?*

3:00 – 3:30

**Break**

3:30 – 5:00

**Summary Session:** Combine working group efforts

*Identifying the 20 best practices to minimize potential conflicts, reduce habitat destruction and wildlife harassment while increasing safe enjoyment of coastal water users*

***Identifying the potential management actions that TPWD, GLO and other management agencies should investigate and consider to reduce habitat destruction, wildlife harassment and user conflicts***

## **Appendix III - Plenary Speakers Biographies**

### **Plenary Speaker Biographies**

**Andy Danylchuk** The overarching theme of Dr. Danylchuk's research is to understand the factors that naturally influence the life history and ecology of fishes and other aquatic organisms, as well as how natural and anthropogenic disturbances can influence the dynamics of their populations. His work spans both marine and freshwater systems, and includes stress physiology, behavioral ecology, spatial ecology, predator-prey interactions, and adaptations in life history traits as a response to disturbance. Much of Dr. Danylchuk's research focuses on evaluating the potential impacts of recreational angling on fish populations, and working with stakeholder groups to develop best practices for the recreational angling community. Some of this work involves the use of telemetry and associated emerging technologies to understand the ways fish function under 'normal' and disturbed conditions, and combines the results of these studies with laboratory and field manipulations to identify specific mechanistic causes of stress in fish. Dr. Danylchuk is also interested in sustainable aquaculture and the development of integrated food production models as a mechanism to reduce impacts on fish stocks and local, regional, and global ecosystems. He is also a strong proponent of experiential, hands-on opportunities that can enhance learning for students of all ages. Andy's love of fishing is clearly shown in his career path, as is his love of learning and sharing his knowledge with whoever's listening. He is the director at the Cape Eleuthera Institute and is responsible for developing research initiatives; liaising with government research organizations; and conducting primary research on the ecology and conservation of shallow water flats. It has always been one of Andy's career goals to have anglers and scientist work side-by-side to address issues relating to fish conservation and management. He is delighted to have developed the Core Angling experience with David Peterson.

**Robert Goodrich** is Assistant Chief of Fisheries Enforcement Texas Parks and Wildlife Department. He joined TPWD in 1986 and his first duty station as a Game Warden was Port Aransas, Texas. He remained there some 4 years then transferred to Corpus Christi as Game Warden and took over fish house investigations for the district. He received Game Warden of the Year Award from CCA in 1989 and 1990 for cases made

on illegal net fishing. He stayed in Corpus Christi two years, and transferred to a inland position as Game Warden. Promoted to Lieutenant Game Warden at the training academy in Austin in 1999, he was then promoted to Captain Game Warden supervising a district in 2002. He was promoted to current position as Assistant Chief of Fisheries Enforcement in 2008.

**Fred Herling** is the chief planner at Everglades and Dry Tortugas National Parks in South Florida. He has been an NPS planner for 25 years working in a variety of park and conservation programs, including the last 8 years in South Florida. Prior to that he worked in the National Park Service's regional office in Philadelphia, PA and was involved in park acquisition, protection and management plan projects for national, state and local park systems from Maine to Virginia, including helping to establish a program for the protection of Chesapeake Bay resources. Fred has an undergraduate degree in Economics from Drexel University and attended the University of Pennsylvania's Masters Program in Landscape Architecture and Regional Planning.

**David Newstead** has always lived in a coastal environment, and the salty breeze permeates every aspect of his life in Corpus Christi. With a background in marine science, he spends most of his days working on managing and preserving populations of colonial nesting water birds. David conducts and manages projects involving census, survey and management of coastal birds – including colonial-nesting waterbirds, marshbirds and shorebirds – and their habitats on the Texas Coastal Bend. David earned a Bachelor's degree from the University of Houston and a Master's degree from Texas A&M University – Corpus Christi. His experience has been in research, restoration and conservation of coastal habitats for birds and other wildlife. His interest in ecology and conservation extends to the brush habitats of South Texas and beyond, and he is actively engaged in trying to spread that enthusiasm to others as president of the Coastal Bend Audubon Society.

**Robin Riechers** is the director of the Coastal Fisheries Division at Texas Parks and Wildlife Department. Riechers began his career with TPWD in 1988 and has served in various roles within coastal fisheries, most recently as the Science and Policy Director. Riechers has played key roles in coastal fisheries conservation and management during his tenure at TPWD, including development and implementation of commercial fishing limited entry programs for shrimp, crab and finfish credited with resource sustainability. On the recreational fishing side, Riechers helped develop innovative strategies for conservation and management of the state's spotted seatrout and flounder, and protection of seagrass. Riechers began his career at TPWD as an economist in the Coastal Fisheries Division where he implemented and managed the human dimension program that plays an integral part of the agency's coastal fisheries policy making

today. He has represented the department on the Gulf of Mexico Fishery Management Council since 2000 and he served as the first ever two term chairman of the Council in 2006 and 2007. Riechers received his Masters degree from Texas A&M University

**Perry Trial** received his BA in Biology from Austin College, May 1993 and a MS Fisheries Science, Texas A&M University, College Station, TX May 1999. He started with Texas Parks and Wildlife in July 1998 working at the Coastal Fisheries field station in Brownsville as the Lower Laguna Madre Ecosystem Biologist. In November of 2002 he moved to Corpus Christi and became the Upper Laguna Madre Ecosystem Biologist. In June 2007 he was named Ecosystem Leader of the Corpus Christi Bay Ecosystem Team at the Rockport Marine Lab. Since the beginning of his career with Texas Parks and Wildlife, he has worked in and studied seagrass-dominated bay systems. He has been heavily involved with seagrass research and public outreach in Redfish Bay since 2005.

#### **Appendix IV – Post Workshop Survey**

***See attached PDF***