



U.S. FISH AND WILDLIFE SERVICE COLUMBIA FISHERY RESOURCES OFFICE ACCOMPLISHMENT REPORT

...Dedicated to Conserving Big River Ecosystems in America's Heartland.

Partnerships and Accountability

Columbia FRO Biologists Participate in Pallid Sturgeon Training

Fishery Biologists Andrew Plauck, Andy Staroska and Nick Utrup traveled to Williston, North Dakota to attend a training meeting for the Pallid Sturgeon Population Assessment Team. The Population Assessment Crews sample for endangered pallid sturgeon on 2,300 miles of the Missouri River. As one would expect, a project that stretches from Montana to Missouri is going to involve a fair number of people and require close cooperation with multiple agencies. Crews from the Columbia FRO, Missouri Department of Conservation, Great Plains Fish and Wildlife Management Assistance

Office, Missouri River Fish and Wildlife Management Assistance Office, Nebraska Game and Parks Commission, South Dakota Game, Fish and Parks, North Dakota Game and Fish, and Montana Fish, Wildlife and Parks, and the Army Corps of Engineers met at the confluence of the Yellowstone and Missouri Rivers for this training.

The team meets once a year to standardize procedures and calibrate crews on the sampling protocol for this large-scale project. This annual event is intended to ensure crews are conducting field work in a comparable manner throughout the basin. These coordination

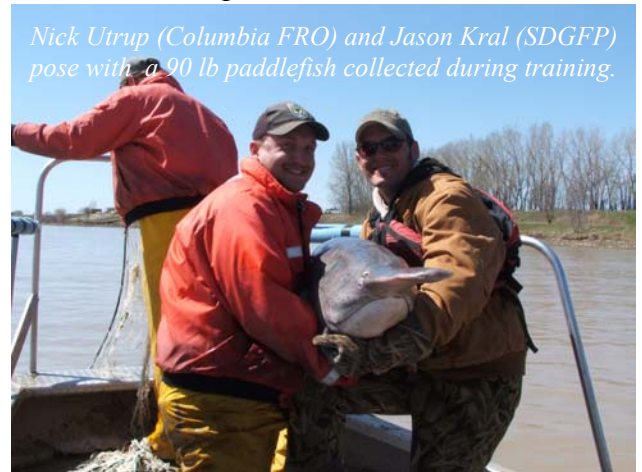


A 54 lb pallid sturgeon collected for use as brood stock at Garrison NFH.



trips are an excellent way to bring new members up to speed quickly, promote new ideas and ensure the methodologies and protocols are followed. The location of the coordination day is moved each year to allow participants to see various portions and the vast habitat differences of the Missouri River.

The training was held at this particular location to assist Garrison Dam National Fish Hatchery personnel in broodstock collection. This stretch of the river is known to hold a remnant population of mature pallid sturgeon. These hefty wild fish are captured using large mesh trammel nets and taken to the hatchery if they are ready to spawn. The group witnessed a 54-pounder enroute to the hatchery. In addition to this giant pallid sturgeon, the group also captured several paddlefish which weighed up to 90 pounds.



Nick Utrup (Columbia FRO) and Jason Kral (SDGFP) pose with a 90 lb paddlefish collected during training.

Later in the month, field crews from the three sturgeon related projects traveled to Hamburg Bend, Nebraska and Chillicothe, Missouri to attend in depth field training in the similar habitats found on the lower reaches of the river. Crews from the Columbia FRO, Missouri Department of Conservation, Nebraska Game and Parks Commission, and the Army Corps of Engineers attended this trip. Crews met both in the class room as well as in the field at Hamburg Chute, an engineered side chute on the Missouri River and Cranberry Island, a natural chute near Miami, Missouri.



Similar to the coordination meeting on the upper river, these teams review the differences and the unique sampling issues that each office encounters in there reach of the river and provide an in depth focus on local issues.



Pallid field crews discuss sampling techniques and review data entry at Cranberry Bend.

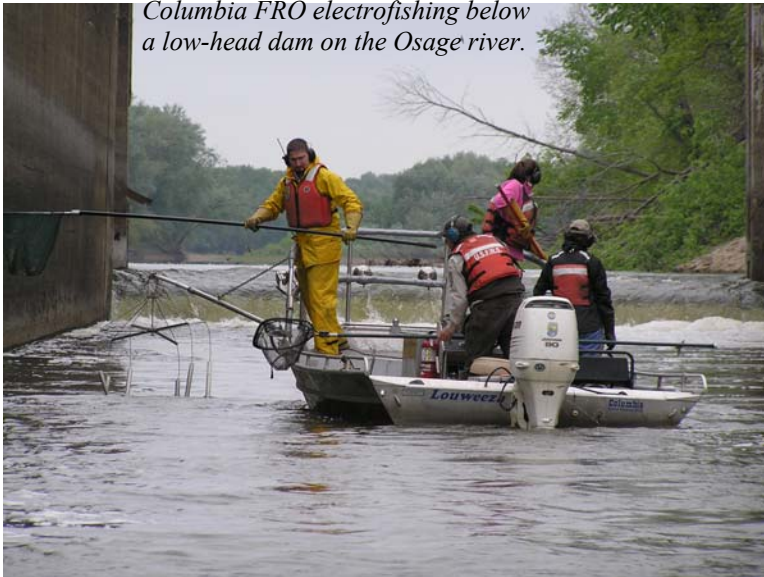
This annual training session is imperative in the cooperative recovery efforts for endangered species within a landscape as vast as the Missouri River. Working with multiple partners over thousands of miles characterizes the Service's Partnership and Accountability goal of developing collaborative conservation strategies for aquatic resources.

Andrew B. Starostka and Andy T. Plauck



Columbia FRO Partners with Bass Pro Shops

Columbia FRO electrofishing below a low-head dam on the Osage river.



Have you ever wondered where the fish that inhabit the tanks of mega-outdoor stores such as Bass Pro Shops come from? Wonder no more, the U.S. Fish and Wildlife Service is responsible for many of those very fish! In early May fishery biologists Corey Lee, Geno Adams, and Cliff Wilson along with Bio Science Aid Breanna Hicks traveled to the Osage River in central Missouri to electrofish specimens for Bass Pro Shops. Bass Pro employees were present to determine fish species and sizes needed for their living exhibits. Fish captured included sauger, crappie, channel catfish, redhorse, and largemouth bass, along with many others. The most interesting catch of the day

included multiple 10+ pound hybrid white bass/striped bass. Captured fish were transported to the Bass Pro Shops headquarters in Springfield, Missouri where they were quarantined and treated for infections and disease. Holding fish also allows them to grow accustom to aquarium life, aquarium feeding, and general human activities that will take place in a retail store setting. Once individual fish are cleared by Bass Pro Shops employees they are dispersed to stores throughout the United States. These aquariums allow the general public a chance to view different species not typically seen in their daily lives. It also serves as an educational tool allowing for programs dealing with fish feeding and fish behavior as well as exotic species identification. Strengthening the partnership with Bass Pro Shops allows for yet another avenue for the U.S. Fish and Wildlife Service message to reach the general public.



Corey Lee and Geno Adams with hybrid bass.

This action helps develop and improve long-term partnerships with States, Tribes, other federal agencies, non-governmental organizations (NGOs), and other Service Programs to develop collaborative conservation strategies for aquatic resources.

W. Geno Adams





2006 River Management Society Symposium and Missouri River

Natural Resources Conference

Fishery Biologists, Jennifer Johnson, Jeff Finley and Branch Chief of Corps Operations, Wyatt Doyle attended the 2006 River Management Society

*Collaborating
IN THE Current*



Symposium and Missouri River Natural Resources Conference in South Sioux City, Nebraska. The conference theme “Collaborating in the Current” provided a forum to exchange information, share perspectives and solve problems.

Johnson presented a poster entitled "*Reproductive Development of Missouri River Chubs in Relation to Environmental Variables*" and "*Reproductive Development of the Sicklefin Chub (*Macrhybopsis meeki*) in the Lower Missouri River*". Jennifer attended presentations on biology, habitat and environmental assessment and monitoring programs. The poster presentation provided valuable opportunity to interact with other graduate students as well as scientists and decision makers from federal and state agencies, to answer questions regarding Jennifer's research, and provide information to interested parties.

Finley presented a session on the push trawl developed at Columbia FRO and it's implications for collecting fish in shallow water habitats. The idea of pushing a net ahead of the boat intrigued many attendees allowing for further discussion for using this setup in other areas of the Missouri River and nationwide. The conference was attended by many cooperators thus meetings for Missouri River mitigation and Corps funded projects were simultaneously scheduled. Doyle and Finley represented the Columbia FRO at these meetings to resolve issues and discuss future monitoring efforts along the river.

Attending this annual conference allows us to share our developments and discoveries in large river science fulfilling the Service's Partnerships and Accountability section of the Strategic Vision.

Jennifer L. Johnson and Jeff M. Finley

MICRA Executive Board Meeting

Project Leader Tracy Hill and Branch Chief of Corps Operations Wyatt Doyle traveled to Vicksburg, MS on April 11 to attend the spring meeting of the Mississippi Interstate Cooperative Resource Association Executive Board. The purpose for the meeting was to review the activities of the various committees of MICRA (Paddlefish, Gamefish, and Mussel) and plot the direction and course of the group for the coming year. In addition to establishing and approving a working budget for the committees activities during FY2006, the meeting provided an excellent opportunity for MICRA's Executive Board to address issues related to Asian Carp and to be informed about the National Fish Habitat Initiative.



A multi-agency partnership effort to address fishery conservation issues in the Mississippi River Basin is consistent with the core principals of the Service’s Fishery Program and is essential to protect, enhance and restore native riverine species in this system. Service participation in this association is consistent and supportive of the “Partnerships and Accountability”, “Aquatic Species Conservation and Management” and “Aquatic Habitat Conservation and Management” priorities of the Service’s Fisheries Program Vision for the Future.

Tracy D. Hill

Aquatic Species Conservation and Management

Collaborative Pallid Sturgeon Sampling in Louisiana



Paul Hartfield, Wyatt Doyle and State of Louisiana biologist verify pallid sturgeon on the atchafalaya River.

Pallid sturgeon range from the Yellowstone River in Montana to the Mississippi River in Louisiana and as such, they exhibit a range of morphometric differences. These differences have been debated by fishery biologists, mostly from not having ever witnessed the variations first hand. For several years, fishery biologists on the Atchafalaya River have been reporting extremely high catches of pallid and hybrid pallid sturgeon below a control structure which divides the Mississippi and Atchafalaya Rivers. Wyatt Doyle and Tracy Hill of the Columbia FRO visited with biologists on the Lower Mississippi and Atchafalaya Rivers this spring to verify if pure pallids exhibited the same traits as those found in the Lower Missouri River and the extent to which hybridization was occurring. Local biologists coordinated with the Corps of Engineers to manipulate water flows below the old river control structure that caused pallids to move closer. When the Corps turned the

water off commercial fishermen were ready to lay down nets to intercept the fish moving back away from the structure, targeting a 100 ft deep hole. After discovering this hole, biologists have found over 200 large pallids and their hybrids sampling there. During the April sampling, 20 pallids and hybrids were captured, tagged and released. Wyatt Doyle has been working on pallids on the Lower Missouri River for over four years and having seen dozens of pallids and their hybrids on that system was able to confer with State of Louisiana fishery biologist (Bobby Reed) and Fish and Wildlife biologists (Paul Hartfield from Ecological Services and Jan Dean from Natchitoches Fish Hatchery) about similarities among their fish. Geneticists have cautioned that the fish appear different genetically and that mixed stockings should not occur. Despite some disagreement on the magnitude of hybridization, there was a consensus among the biologists that the purest pallids looked very similar to those on the Missouri River. Efforts are now underway to



increase funding below the structure to get a comprehensive mark and recapture study funded. Additional efforts have been made to spawn the fish and raise them at Neosho National Fish Hatchery in Missouri so that researchers can perform bioenergetics studies comparing pallids from different regions of the country. Pallid sturgeon range from the Yellowstone River in Montana to the Mississippi River in Louisiana and as such, they exhibit a range of morphometric differences. These differences have been debated by fishery biologists, mostly from not having ever witnessed the variations first hand. For several years, fishery biologists on the Atchafalaya River have been reporting extremely high catches of pallid and hybrid pallid sturgeon below a control structure which divides the Mississippi and Atchafalaya Rivers. Wyatt Doyle and Tracy Hill of the Columbia FRO visited with biologists on the Lower Mississippi and Atchafalaya Rivers this spring to verify if pure pallids exhibited the same traits as those found in the Lower Missouri River and the extent to which hybridization was occurring. Local biologists coordinated with the Corps of Engineers to manipulate water flows below the old river control structure that caused pallids to move closer. When the Corps turned the water off commercial fishermen were ready to lay down nets to intercept the fish moving back away from the structure, targeting a 100 ft deep hole. After discovering this hole, biologists have found over 200 large pallids and their hybrids sampling there. During the April sampling, 20 pallids and hybrids were captured, tagged and released. Wyatt Doyle has been working on pallids on the Lower Missouri River for over four years and having seen dozens of pallids and their hybrids on that system was able to confer with State of Louisiana fishery biologist (Bobby Reed) and Fish and Wildlife biologists (Paul Hartfield from Ecological Services and Jan Dean from Natchitoches Fish Hatchery) about similarities among their fish. Geneticists have cautioned that the fish appear different genetically and that mixed stockings should not occur. Despite some disagreement on the magnitude of hybridization, there was a consensus among the biologists that the purest pallids looked very similar to those on the Missouri River. Efforts are now underway to increase funding below the structure to get a comprehensive mark and recapture study funded. Additional efforts have been made to spawn the fish and raise them at Neosho National Fish Hatchery in Missouri so that researchers can perform bioenergetics studies comparing pallids from different regions of the country.

Continued collaborations such as these promise to build stronger relationships and bring about a quicker compromise and understanding between different regions as we strive to make management decisions.



Pallid sturgeon and their hybrids collected from the Atchafalaya.

Wyatt J. Doyle



Public Use

Columbia FRO Attends Aquatic Day at Hallsville

On May 19th, Fishery Biologists Jennifer Johnson and Geno Adams of the Columbia FRO attended Aquatic Day at Hallsville Elementary. The 4th grade students recently finished a unit of study on aquatic organisms and were invited to attend a session on big river fish. The students were divided into groups of 8 and rotated through stations where they could get up close and personal with white crappie, gizzard shad, shortnose gar, freshwater drum, shovelnose sturgeon, channel catfish, river carpsucker, bigmouth buffalo, carp, and silver carp.



Kids touch a shortnose gar held by Geno Adams.

At each station students were quizzed on fish identification, given an overview of the fish's anatomy, diet, habitat requirements and fun facts. This gave biologists a chance to educate attendees on general life history characteristics of river fish and what role they play in the river ecosystem. The children were especially curious about feeding methods of fish, how they 'breathe' and their unique anatomical structures. They enjoyed touching the fish and seeing first hand an example of living organisms from the Missouri River. This was the first opportunity for Columbia FRO to perform outreach in the community of Hallsville.

Through this event a great relationship was established with the staff and teachers of Hallsville Elementary School laying a foundation for future educational opportunities in keeping with the aquatic education objectives of the 'Public Use' goal outlined in the 'Fisheries Program Vision for the Future'.

Jennifer L. Johnson and W. Geno Adams

Catfish 101 Part II

Since 2003, the Missouri Department of Conservation has sponsored a course every May on how to catch catfish in the Missouri River. Columbia FRO participated in last year's event by hosting a fish fry during the classroom portion of the course and providing guides and boats for the field portion of the course. Once again Columbia FRO provided guides to take out registered students to deploy the gear they had created during the classroom session.

The second day of the course instructors from MDC and Columbia FRO set sample gear at the Overton Bottoms Unit of the Big Muddy National Fish and Wildlife Refuge for students to check that evening. At 6:00 pm the participants arrived with their own gear, boarded the boats to check the previously set gear and to set their own. Branch Chief of Corps Operations, Wyatt Doyle, and Fishery Biologists, Andy Starostka and Jeff Finley each guided a crew, setting trot lines, bank poles and throw lines. The crews then fished



late into the night using rods and reels and discussed the finer points of Missouri River management and the adjacent mitigation projects on the Big Muddy Refuge. The participants returned Saturday to check and pull their lines, attend a fish cleaning class, take pictures and swap stories.

The 2006 Catfish 101 course was an overwhelming success luring in a record number of people from across the state who normally do not participate in river related activities, to discover a deeper appreciation of the Big Muddy.

The cooperation of MDC and Columbia FRO in Catfish 101 is an example of promoting fishing advocacy highlighted in the Public Use Goal of the Fisheries Program Vision for the Future.

Jeff M. Finley



1st graders enjoyed handling big river fish.

You Just Can't Beat Live Fish!

How do you impress 1st graders? Show them a picture of a big fish! How do you make 100 1st graders turn into a screaming, chaotic mob? Show them LIVE fish! That's exactly how fishery biologists Jennifer Johnson, Nick Frohnauer, and Geno Adams along with Biological Technician Derrick Eisenbrei introduced Paxton-Keeley 1st graders in Columbia, Missouri to the wonderful world of Missouri River fish. Students along with teachers were allowed hands on experience with smallmouth buffalo, shovelnose sturgeon, blue catfish, and other native riverine species along with the exotic silver carp! It gave the U.S. Fish and Wildlife Service another opportunity to educate the

public on issues dealing with the Missouri River as well as exotic species and their affects on the ecosystem. Inquisitive students had the opportunity to launch a barrage of questions ranging from "Can this fish bite me?" to "What is the biggest fish in the world?" The mob mentality only worsened when biologist's handed out U.S. Fish and Wildlife Service memorabilia along with informative Asian carp cards to all students. Hopefully students and teachers alike came away with a greater appreciation for the creatures that swim in the waters of this Missouri River.

This action fulfilled Action 3.3.2: Work with partners to identify and implement outreach and education activities regarding the concept, value, and importance of responsible recreational fishing to the American public.

W. Geno Adams



Refuge Fest 2006!



Biological Technician Tammy Knecht, Fishery Biologists Geno Adams and Jennifer Johnson (left to right) traveled to DeSoto National Wildlife Refuge near Council Bluffs, Iowa on Wednesday, May 31, 2006 to take part in the yearly sampling effort at DeSoto Lake. The U.S. Fish and Wildlife Service has partnered with the Iowa Department of Natural Resources and the Nebraska Game and Parks Commission to sample the fish community and offer management strategies to improve sport fishing opportunities. Due to the shallow nature of the oxbow lake, DeSoto has battled common carp for a number of years. To bring this problem to the

forefront, the Refuge puts on a carp fishing tournament on a yearly basis which they call Refuge Fest. Tagged common carp in DeSoto Lake that were captured during the tournament were worth \$200 which bolstered interest in the event. Bass Pro Shops, U.S. Army Corp of Engineers, and various U.S. Fish and Wildlife Service employees were there with activities and displays for the general public to take part in. The Columbia FRO displayed sampling gears including hoop nets, trap nets, and trammel nets, along with boat electrofishing equipment. Live fish were also displayed for kids and parents to handle. This gave biologists a chance to improve public relations and educate people on fish biology



Jennifer displays a 6 lb walleye collected during an electrofishing survey of Desoto Lake.

Two young ladies getting their hands around the common carp problem in Desoto Lake during the refuge festival.



and identification.

Information on the role of the U.S. Fish and Wildlife Service in natural resources was dispersed along with fact sheets for exotic species. Through sampling of DeSoto and this outreach event, partnerships with state and other federal agencies were strengthened along with the U.S. Fish and Wildlife Service's relationship with the general public.

W. Geno Adams and Jennifer L. Johnson



Leadership in Science and Technology

Columbia FRO Developing and Implementing Coded Wire Tag Processing Protocol

The Mississippi Interstate Cooperative Resource Association (MICRA) paddlefish stock assessment project is a multi-state cooperative study designed to assess the abundance, distribution and movement of paddlefish in the Mississippi River basin. Twenty-two state agencies, four Fishery Resources Offices, and eight National Fish Hatcheries are involved in the stocking, tagging, release, and recapture of these paddlefish. Commercial and sport anglers also lend a hand by returning rostrums and capture location information to their local fish and game offices.

Scanning a paddlefish rostrum for a coded wire tag.



In 1995 field biologists and technicians throughout the Mississippi River basin began sampling and tagging efforts designed to gather information on the abundance and movement of the paddlefish. The data gathered during these sampling trips is recorded on datasheets which are mailed to the Columbia FRO for processing and assimilation into a basin-wide database. Fishery biologists can use this information to track the movement and abundance of paddlefish throughout the Mississippi River basin.

At the 2006 Mississippi Interstate Cooperative Resource Association meeting, Columbia FRO technician Casey Bergthold presented a Standardized Protocol that has now been implemented to aid technicians in processing the MICRA paddlefish stock assessment data. The protocol consists of a large flow chart that walks technicians through each step of tag processing and data entry; from the initial receipt of the data to the final proofing in the electronic database. This protocol will reduce database errors and increase the efficiency of the data processing. These advances will allow state and federal biologists to have access to more current and accurate data on the movement and abundance of paddlefish in their region. It will also aid in the assessment of paddlefish population trends in the Mississippi River and its tributaries.

Developing and implementing a standardized protocol for the MICRA paddlefish stock assessment project aids in the development, application and dissemination of state-of-the-art science and technology to conserve and manage aquatic resources outlined in the “Fisheries Program Vision for the Future.”

Casey L. Bergthold

Independent Scientific Review of Missouri River Habitat Assessment Program

Wyatt Doyle and Andy Starostka of the Columbia FRO participated in their fifth Habitat Assessment meeting in Omaha, NE. This meeting represents the culmination of efforts from multiple State and Federal Agencies over the last two years in an effort to build a sampling program for evaluating shallow water habitat created on the Missouri River by the Corps of Engineers (COE). The meeting was overseen by an independent panel of



scientists from Sustainable Ecosystems Institute which was hired to evaluate the program design. The panel confirmed that the design proposed would address the goals and objectives of the program. Efforts will now move forward to expand monitoring in additional reaches of the river. Biological data in this program is being combined with physical data collected by the Corps to describe creation of sand bars from flow and dike modification changes.

The increase in biological diversity and presence of sturgeon in these sites will be a gauge of the Corp's success over time. This is a collaborative approach undertaken by numerous State Resource Offices, the Corps and the US Geological Survey in an effort to recover endangered pallid sturgeon habitat and to restore the overall health of the Missouri River. As a result of the rigorous review process, the data should be more meaningful to researchers and provide publishable results quickly.

Wyatt J. Doyle and Andrew B. Starostka

Aquatic Habitat Conservation and Management

White River Habitat Project Meeting

Project Leader Tracy Hill traveled to Big Cedar Lodge located on the shores of Table Rock Lake in southwestern Missouri to attend the White River Habitat Project Meeting. The purpose for the meeting was to discuss how Bass Pro Shops, the National Fish and Wildlife Foundation, and Missouri Department of Conservation in cooperation with many other partners could work together to conserve and restore fish habitat throughout the nation. These partners are considering a variety of fish habitat enhancement projects that will benefit reservoirs in the White River system. These fish habitat projects are consistent with the goals of the National Fish Habitat Action Plan. The Plan offers a unique opportunity to restore and manage aquatic habitat on a national scale. The mission of the National Fish Habitat Action Plan is to protect, restore and enhance the nation's fish and aquatic communities through partnerships that foster fish habitat conservation and improve the quality of life for the American people. During the meeting participants specifically focused on projects that would directly benefit Table Rock Lake as well as downstream Lake Taneycomo. Projects developed for these two lakes are hoped to serve as a model for improving the habitat of the nation's aging reservoirs and their watersheds.

Participation in this meeting is yet another example of the Columbia FRO's commitment to the "Partnerships and Accountability", and "Aquatic Habitat Conservation and Management" focus areas of the Fisheries Program's Vision for the Future.

Tracy D. Hill

Region 3 Fish Passage Workshop

Project Leader Tracy Hill and Fishery Biologist Nick Frohnauer traveled to Alpena, MI on 8 May to attend a Fish Passage Workshop. The purpose for the workshop was to share ideas related to fish passage restoration activities among field offices, regional



office and national program coordinators and to address key issues important to advancing fish passage restoration in the Region. The workshop provided an excellent forum for participants from all aspects of the Service to exchange information on issues related to fish passage restoration activities, discuss how programs (Fisheries, Partners and Costal) implement fish passage projects, explore fish passage project monitoring, address challenges presented by aquatic invasive species and identify additional funding opportunities for fish passage projects. The workshop was well attended with representation from most Service programs and was extremely beneficial to those programs involved in habitat restoration activities. Participation in the workshop gave Columbia FRO staff an opportunity to highlight fish passage activities being conducted by the station and to become better educated with regard to fish passage restoration activities across the Region.

Participation in this workshop is an example of Columbia FRO commitment to the Service's "Partnerships and Accountability", "Aquatic Habitat Conservation and Management", and "Leadership in Science and Technology" focus areas of the Fisheries Program's Vision for the Future.

Tracy D. Hill

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