

INNOVATIVE MANAGEMENT FOR RECREATIONAL FISHING

BASS SPAWNING SANCTUARIES: Long-term research has many benefits, and in 2023, we saw exactly how these data can impact management decisions. After 25 years, FCF and partners were awarded permission from the Ontario Ministry of Natural Resources to establish experimental Bass Spawning Sanctuaries in two lakes to monitor a) their impacts on protecting reproduction and recruitment of largemouth (LMB) and smallmouth bass (SMB) from angling during the nesting season, and b) how angling over the years has changed the demographics and behaviors of LMB and SMB populations. One of the drivers in this decision was our study that compared how the different levels of angling activity on nesting bass before and during the COVID pandemic shutdown affected bass reproductive success and recruitment. Results were published in the Canadian Journal of Zoology and selected as the Editor's Choice paper for their November 2023 issue.

Dr. Jim Ludden (FCF Advisory Council) monitors the spawning success of black bass. In 2024, these methods will be used to assess reproductive success and recruitment within and outside the sanctuary areas.



Scan this code to see the
research paper



BLACK BASS 2025: The 1st Black Bass Symposium was held in 1975, and 25 years later, FCF was a key player in the 2nd Symposium. Continuing with this 25-year cycle, FCF is now leading the way for a 3rd Black Bass Symposium (BB2025), to be held in August 2025 (co-hosted with the American Fisheries Society). BB2025 will assemble stakeholders from science, management, angling groups and the angling industry to a) review the state of the bass fisheries in North America, b) identify key current and future challenges, and c) form new partnerships among the different stakeholder groups to plan for a sustainable future for bass angling. This high-profile event will offer excellent opportunities for education and outreach activities to connect all constituents of black bass fisheries.



Shauna Williams (FCF Advisory Council) holds a beautiful smallmouth bass from of an acoustic tagging study. As part of the new sanctuary study, we will monitor fish movement using similar techniques.

Your support makes this work possible!

FCF 2023 REVIEW

MAHSEER RESEARCH AND CONSERVATION

NEW MAHSEER TRACKING PROJECT: Prior to 2015, no one had attempted to study the migration of Golden Mahseer in Bhutan, and little was known from elsewhere in the world. Our recently completed tracking study in the Manas River watershed has been instrumental in driving Bhutan's conservation plans for this iconic species. In 2023, in partnership with Bhutan's Nature Conservation Division, FCF launched a more detailed research project, one located on another of Bhutan's large rivers, the Punatsangchhu. This project will not only provide more information on the migration patterns and spawning behaviors of Mahseer, but also examine how hydropower development may influence those patterns and behaviors. This study will also identify key spawning tributaries and nursery areas using a combination of traditional sampling and eDNA techniques.

Learn about our first Mahseer tracking project here:



Capacity training in Bhutan has included teaching rangers how to install and monitor the telemetry array and assess the movement of Mahseer.



FCF representatives Bryant Dunn, David Philipp, and Julie Claussen were present for the opening ceremony of Bhutan's recreational fishing program in March.

RECREATIONAL FISHING OPENS IN BHUTAN: In March of 2023, a ceremony was held in Bhutan on the banks of the Punatsangchuu to celebrate its first legal recreational fishing raft trip. FCF has been instrumental in establishing recreational fishing in Bhutan and instilling a philosophy of community conservation, which links the economic benefits of ecotourism with local village stewardship. FCF continues to assist in the efforts to educate local residents, fishing guides, and international anglers on the sustainable management of Mahseer populations.

About the Program Best Fishing Practices

Scan to view two of the educational resources we produced for Bhutan.



IMC3: FCF is partnering with the Mahseer Trust and others in the International Mahseer Conservation Partnership to organize, host, and sponsor the 3rd International Mahseer Conference (IMC3) in Viet Nam in the spring of 2025. This conference will reassemble the leaders in Mahseer research and conservation across Asia to continue critical activities on several joint projects.

IMC3 Website:

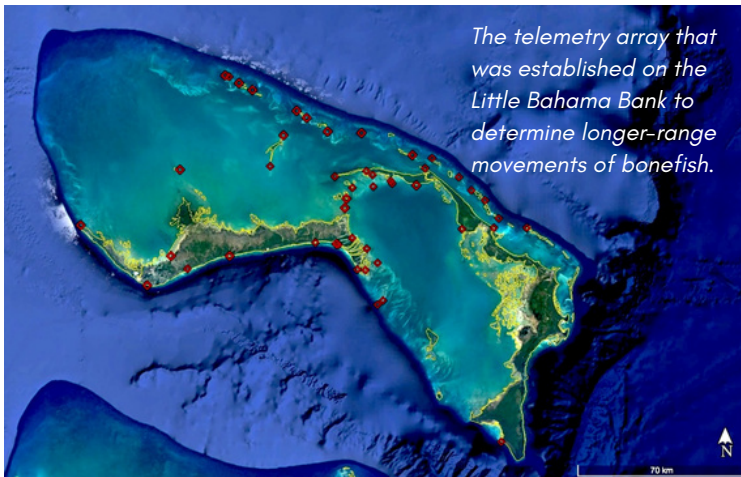
<https://mahseerconservation.org/imc3-information>

ADVISORY PARTNERSHIPS: FCF also continues to work with our research partners in Pakistan and Nepal in their efforts to understand the health and migration patterns of their golden mahseer populations. Pakistan has the first radio-telemetry project to track migratory species both above and below a hydropower dam.

FCF 2023 REVIEW

FLATS ECOLOGY AND CONSERVATION PROGRAM

BAHAMAS: For over 15 years, FCF has supported telemetry research in the saltwater flats ecosystem, looking at migration patterns, uncovering reproductive behaviors, and assessing spawning aggregation sites of bonefish. FCF is now summarizing the results of that work in a report to the Bahamian government, as well as submitting our most recent work for publication in a peer-reviewed journal. These documents include a series of recommendations for more effective conservation actions for The Bahamas and elsewhere across the Caribbean.



The telemetry array that was established on the Little Bahama Bank to determine longer-range movements of bonefish.



Dr. Tony Goldberg, FCF Advisory Council, with a Bahamian bonefish. How the various species of bonefish differ in migration patterns and spawning behaviors has yet to be determined.

CHRISTMAS ISLAND: As part of a private fishing trip to the Christmas Island Lodge, some FCF Board and Advisory Council members took the opportunity to assess the potential for a telemetry study to track flats species in Kiribati. Christmas Island differs from The Bahamas in their ocean current patterns and the level of isolation in their global location. Those differences make it likely that the life history strategies displayed in Bahamian bonefish (*Albula vulpes*) would differ substantially from Christmas Island bonefish. As a result, information gained from such a study would be critical for developing future conservation strategies for Pacific species.



FCF Board Member Dr. Rick Williams, (holding a bluefin trevally) on a recent fishing trip to Christmas Island to assess the potential of a telemetry project on flats species.

Dr. David Philipp and Bryant Dunn (FCF Board) lead a discussion with Christmas Island fishing guides about research questions, conservation actions, and the flyfishing ecotourism industry.



FISH • WATER • PEOPLE

Our belief is that if the fish are healthy, then the quality of the water and the habitat is healthy, and that is directly connected to the health of people.

FCF 2023 REVIEW

COMMUNICATION AND OUTREACH PROGRAM

CLIMATE AMBASSADORS PROGRAM: One of the tenets of FCF is to effectively communicate science-based approaches as a central part of decision-making. For the last few years, FCF has been a major partner (with the American Fisheries Society) in running a communications training program focussing on climate science. The team works to equip natural resource professionals with the communication tools necessary to make their science understandable and to connect with stakeholder audiences. This unique training program received an American Fisheries Society award in 2022.

COMMUNICATION WORKSHOPS: Following the success of the Climate Ambassador Program, FCF has participated in various communication training events in 2023, including in-person workshops for the Nature Conservation Division in Bhutan, for PICES international conferences and at AFS annual meetings. Additional training sessions have also been conducted online.



The science communications training team consists of members from FCF, EXACT, AFS, and Sea Grant. Learn more here:



WORLD FISHERIES CONGRESS

WORLD FISHERIES CONGRESS: The USA will be hosting the World Fisheries Congress for the first time (March 3-7, 2024), and FCF has been busy planning several engagement efforts. We will be co-hosting a science communications workshop and will be leading outreach events with speakers from two symposia, *Assessing the Status of Inland Fisheries for Policy* and *Status of Fish and Fisheries in the Himalayan Region*. Learn more about the congress at: <https://wfc2024.fisheries.org/>.



Help Support FCF in 2024

Learn how you can donate at: <https://www.fishconserve.org/donate-to-fcf/>

100% of your donation goes toward our work in promoting science-based solutions for healthy fisheries.



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