

Against the Current: Experiences and perceptions of fishers along the Miami River (FL, USA)



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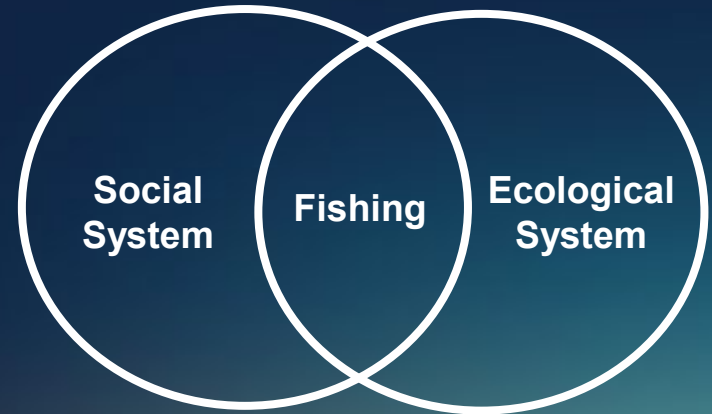


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Urban Fishing

- **Made up of diverse groups** (Boonstra et al., 2022)
 - Are more likely to be affected by anthropogenic pollution (Burger et al., 1999)
- The practice of fishing, a *primary-contact recreational activity*, couples human and natural systems in a social-ecological context (Soriano et al., 2022)
- Shown to improve mental health, food security, and community wellbeing (Nieman et al., 2021)



Contested Urban Space: Downtown Miami

The Miami River has had limited public access historically, but efforts like the Miami River Greenway, which began construction in 2001 have worked to enhanced access for locals

However, even as access increases the Miami River is primarily managed as a space for commerce, trade, and transportation.

Not as a fishery



A NOTE USING THIS GUIDE:
Locator keys identify sites on this map, including VR from the collection of the Miami River and Biscayne Bay Locator keys are in use of the following four categories:

- **WATERING UTILITY** (blue outline)
- **WATER MAINS** (blue lines)
- **POINTS OF INTEREST** (red outline)
- **AREA BUSINESSSES** (red outline)

MIAMI RIVER BRIDGES

- **Access (S):** Flare (F)
- **Brickell Bridge (B)**
- **Miami River Bridge (M)**
- **South Miami Avenue (S)**
- **Midway (F)**
- **S.W. 2nd Avenue (S)**
- **Interstate 1-165 (I)**
- **S.W. First Street (S)**
- **West Flagler Street (S)**
- **N.W. 10th Street (S)**
- **N.W. 12th Avenue (S)**
- **S.E. 13th Avenue (S)**
- **N.W. 17th Avenue (S)**
- **N.W. 27th Avenue (S)**
- **N.W. South River Dr. (S)**
- **Railroad (R)**

POINTS OF INTEREST

- Beginning of Miami River Greenway
- James L. Knight Convention Center
- Metro-Mover "17th Street" Station
- Metro-Mover "Midway" Station
- Metro-Rail "Downtown" Station
- Miami-Dade Cultural Center
- Stephen F. Clark Government Center
- Metro-Rail "Government Center" Station
- Building
- Metro-Rail "Calleton" Station
- Greenfield Garden
- Miami-Dade Justice Building
- University of Miami Medical Center
- Metro-Rail "City Center" Station
- Jackson Memorial Hospital
- Miami Marlins Ballpark
- Public Boat Ramp
- Miami International Center
- Metro-Rail "Airport" Station
- The Mall Airport Station
- Miami International Airport
- Safety Data

WATERING MAINS SITES

- The Historic Miami River
- Brickell Key
- Miami City
- Flight Workers House
- Joe Wall Park
- Miami River Wet
- Hoguen Reservoir
- Fair Station
- Southern-Rite Temple
- Power Park
- Spring Garden
- Coppinger's Village
- Miami River Rapids



MIAMI RIVER BUSINESSES

- 1 **126 STREET MARINA**
341 SW 126th Ave. in Miami (2018)
(305) 254-2949 • www.126streetmarina.com
- 2 **ADINA ROCKLEIGH ESH**
301 SW 12th Street
(305) 340-0000 • www.adinashoes.com
- 3 **ARTISTALIA BARRIE**
International Center Terminal
300 SW 12th Street
(305) 442-0000 • www.artistalia.com
- 4 **ARIZO MARINE**
3401 SW 12th Street
(305) 254-2949 • www.arizo.com
- 5 **AVIATION • FABER & CO., P.A.**
301 SW 12th Street
(305) 442-0000 • www.aviation.com
- 6 **AVION MARINE EQUIPMENT**
301 SW 12th Street
(305) 442-0000 • www.avionmarine.com
- 7 **BOSCHIAN BAY PLOTS**
301 SW 12th Street
(305) 442-0000 • www.boschianbay.com
- 8 **BEVERLYS**
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(305) 442-0000 • www.beverly.com
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(305) 442-0000 • www.chocolate.com
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(305) 442-0000 • www.chrysler.com
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(305) 442-0000 • www.dank.com
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(305) 442-0000 • www.dunn.com
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City of Miami
NET Neighborhood
Enhancement
Trust
NET Office Areas

- Allapattah
- Downtown
- Flagami
- Little Havana
- Overtown

Miami River Greenway

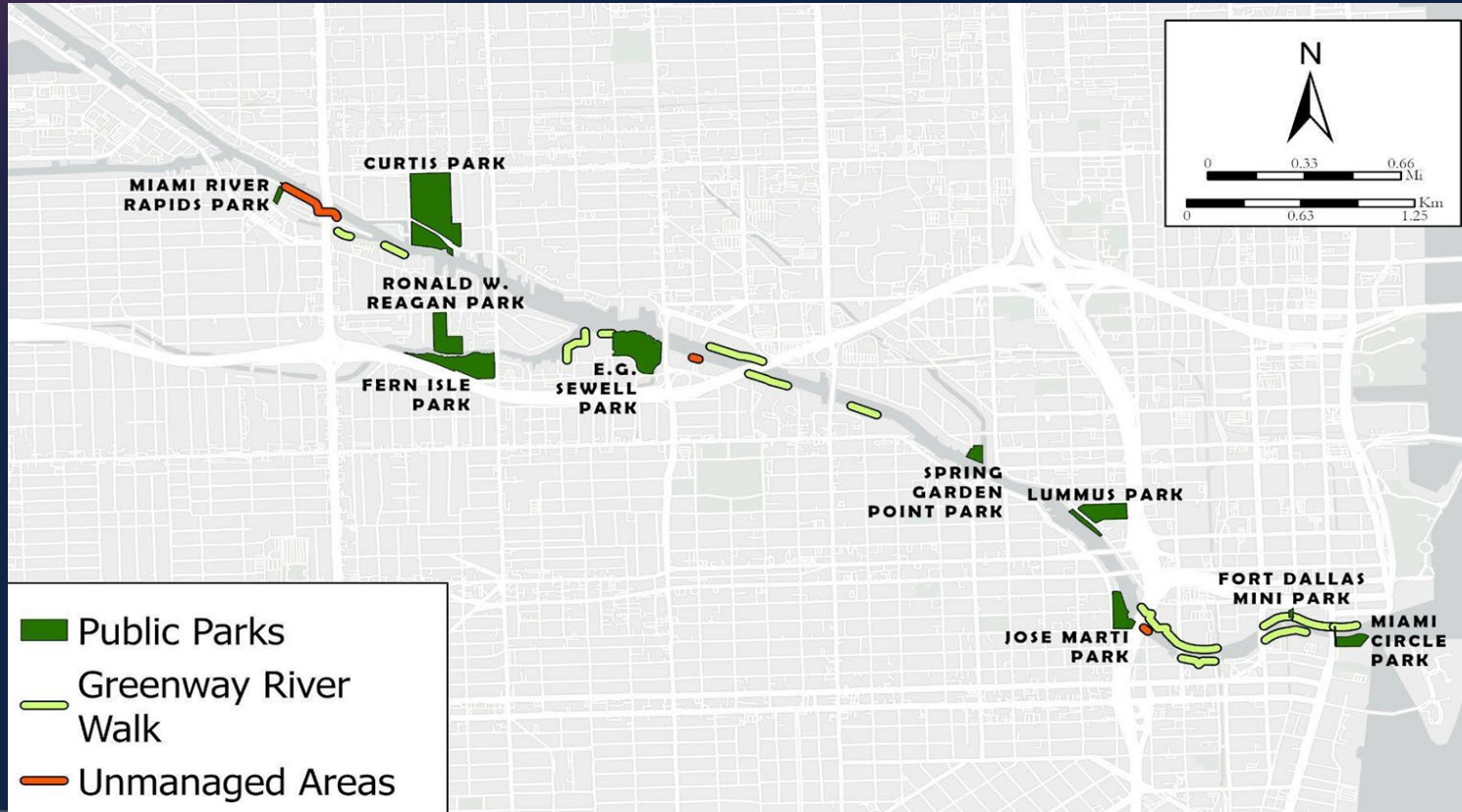
- Existing Greenway
- Proposed Greenway
- Existing On-Road Greenway
- Proposed On-Road Greenway

Scale of Miles
0 0.5 1 1.5 2

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Given that fishing is prohibited in publicly-managed parks and an undesirable practice for private landowners, the Miami River lacks official designation as a fishery.

Despite its lack of recognition, the practice persists and remains poorly studied.



How do fishers perceive and experience the Miami River (FL, USA)?

- What are their motivations?
- What barriers do they face?
- What concerns do they have for the river?

Sampling

- Participants are being sampled on public areas bordering the Miami River
- theoretical & criterion sampling methods

Data Collection

- Participant observation
- Semi-structured interviews

Analysis

- Open-coding analysis using NVivo
- Axial coding to identify sub-themes in data

Findings: Motivations

Emotional

“Why do I fish? **Because it's an incredible sensation.** The only person who can tell you how it feels is a fisherman. **-It's pure adrenaline.**”

“The experience. **It's beautiful, very good. You feel the breeze and see the people who come.**”

Mental Health 

Provisional

“Of course. **The fish I catch here goes straight to the kitchen.**”

“-What day was it... On friday I caught a nice one, **so I fried it and ate it.**”



Food Security 

Social

“Yes, Here **I made one of my best friends. We are always together, and we always come here**”

“**We share our bait and talk with one another**”

Community Wellbeing 

Findings: Barriers to Access

Legal

- The greenway has a **fragmented management scheme**, with private landowners managing adjacent greenway
- **Fishing is not permitted** in City of Miami Parks **due to “danger concerns”** and **“threat of lawsuits”**

Physical/Spatial

New developments and expansion of the Miami River Greenway is **spatially constricting** fishers into smaller and lower quality spots



Financial



No free parking along the Miami River Greenway outside of public parks

Concerns and Recommendations

Participants' concerns:

Access

Pollution

Development

How can access be facilitated?

Most Effective:

- Amend **City of Miami Park rules** to allow fishing
 - Install signage to guide fishers to desired areas
- Increase free parking access

Effective:

- Install signage in publicly managed greenway spaces (bridges - **Department of Transportation**) that signal legal fishing

Results & Key Findings

Access

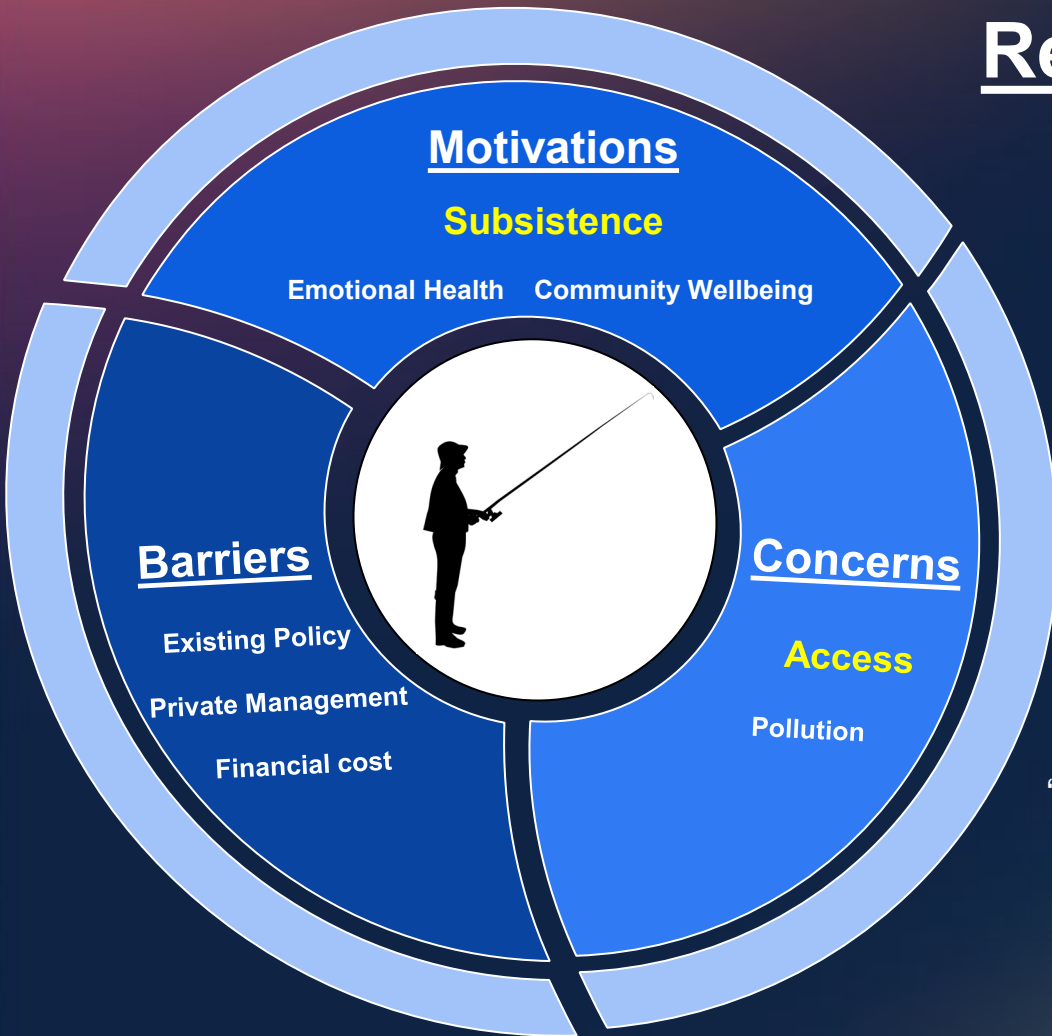
“We are cleaning. Always cleaning. -And I am doing it a hundred times a day so they don't kick us out of this place.”

[On fishing access] “It's definitely difficult. - Not everyone has a boat or the possibility to go out and fish. And yet, all of these shorelines are here but there are many restrictions around the city. It shouldn't be like this.”

Subsistence

“Of course. The fish I catch here goes straight to the kitchen.”

“Here? Almost every day. I have to enjoy myself. If I didn't I would be sitting in my house, alone.”



Discussion & Conclusions

- Difficult access, for both physical fishing space and advisory information, is harming individuals who rely on the Miami River
- Throughout our study, Fishers frequently mentioned laws and expressed concern over species preservation but not consumption
- Frequent consumption is likely detrimental for their health, but no signage is posted at any of our sites

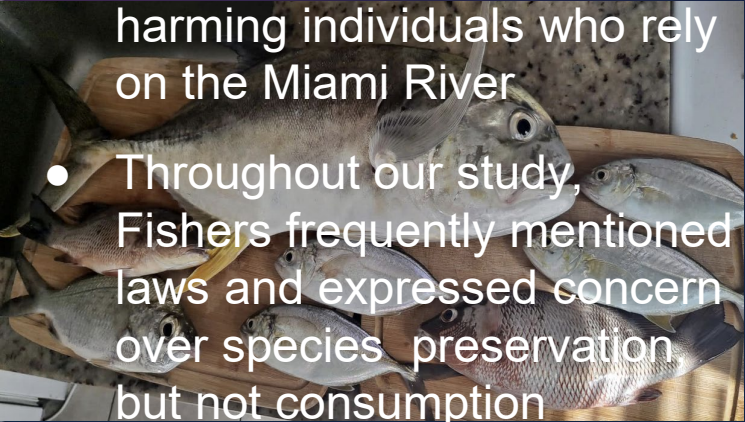






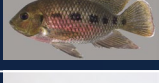

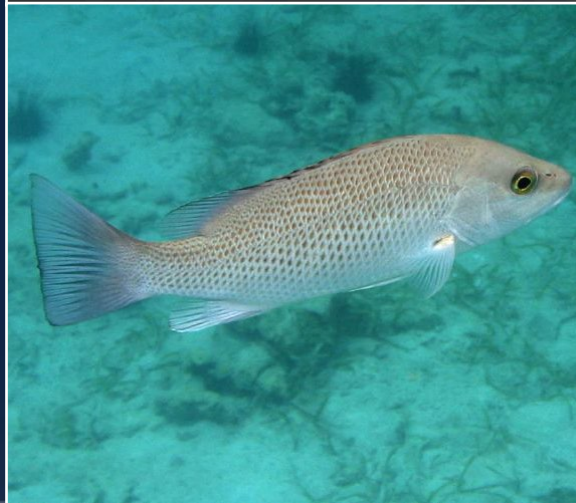


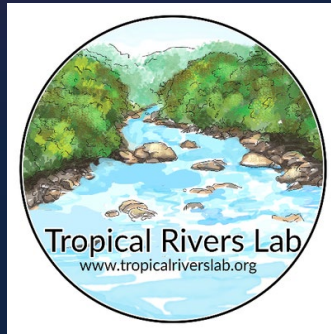
Illustration	Consumption Guideline (Number of Meals)		Data Source Area
	Childbearing Individuals & Young Children	All Others	
	DO NOT EAT	DO NOT EAT	Wagner Creek
	DO NOT EAT	1 per month	Biscayne Bay
	1 per month	1 per month	Biscayne Bay
	1 per month	1 per week	All coastal waters (FL)
	1 per month	2 per week	Biscayne Bay
	1 per week	2 per week	All coastal waters (FL)
	2 per week	2 per week	Miami Canal
	2 per week	2 per week	All coastal waters (FL)

Future Steps

- Ecotoxicology study on frequently consumed species
 - Mullet and Mangrove Snapper are urgent targets
 - PFAs will be toxin of focus given existing baseline knowledge for Mercury and recent discoveries for Biscayne PFAs levels



Acknowledgments



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