

Capturing Minority Voices: A Focus Group Approach to Understanding Fishing Behavior in Alabama

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Abstract: Recreational fisheries planning and management relies on an engaged public with support in the form of fishing license sales and expenditures that fund operations and provide education and outreach services. To improve our understanding of two minority population segments with low historic participation in freshwater recreational fishing in Alabama, we examined their fishing participation and non-participation behaviors using focus groups. The objectives of the study were to gather information about 1.) African American and Latinx fishing-related experiences, values, and motivations, 2.) constraints that may prevent individuals of these population segments from fishing in public waters, and 3.) constraint negotiation strategies that may enable them to increase their participation. In spring 2018, we conducted nine semi-structured focus group meetings with African American and Latinx community members in seven urban and rural locations across the state. We found that fishing is culturally relevant and valuable to both segments though perceived and encountered constraints such as information regarding fishing licenses, knowledge and skills, time, work, and access points influenced their participation. Purchasing a fishing license was the most significant constraint communicated by the Latinx segment. Latinx participants emphasized social connection as a motivation for fishing while relaxing and escaping stressors was highlighted by African American participants. General awareness about opportunities, basic fishing information, and regulations was low, while a desire for education, outreach, and opportunities to fish was high. Our study initiated dialogue between the state agency and an underrepresented audience and is a first step in understanding the latter's behavior regarding freshwater recreational fishing. These findings have important implications for recruiting and retaining diverse participants.

Key words: recreation, angler, R3, underrepresented groups

Journal of the Southeastern Association of Fish and Wildlife Agencies 8: 65–74

Recreational freshwater fishing plays an important role in connecting community members to their natural resources and supporting personal health and well-being (McManus et al. 2011) while contributing to local and state economies (Southwick Associates 2019). Fishing-related expenditures and license sales fund state agency fishery management operations and education and outreach services (Tufts et al. 2015) that are vital to the public. A growing concern about fishing participation became more prevalent in the mid to late 1990s (Fedler et al. 1998). Although nationwide fishing license purchases declined from 2016 to 2019, they are currently trending upward (Southwick Associates 2020).

Fishing recruitment, retention, and reactivation (R3) strategic programming efforts have increasingly become a focus for state agencies and partner organizations to address concerns about participation in recreational fishing (Fedler and Ditton 2000, Responsive Management and National Shooting Sports Foundation 2017). Understanding and responding to the needs of a diverse statewide audience is an important part of the R3 process. With a mandate to educate, inspire, and serve communities statewide, extension programs can aid these efforts and help foster awareness of resource use (Borisova et al. 2016).

The recreation experience model suggests that recreationists are motivated to conduct an activity in a preferred setting to achieve

desired experiential benefits or outcomes (Moore and Driver 2005). Examples of fishing motivations include getting away from daily routines, being outdoors, being with family and friends, and the challenge of catching a fish (Fedler and Ditton 1994, Hunt et al. 2019). Experiential outcomes for the individual comprise psychological (self-esteem, new skills, relaxation), psychophysiological (quality of life, fitness, reduced anxiety), and social/cultural (community identity, family bonding, cultural appreciation) components (Moore and Driver 2005). Furthermore, recreation and tourism benefits also accrue for local communities such as environmental conservation and economic development (Moore and Driver 2005, Lupoli et al. 2015). However, barriers or constraints can limit or preclude an individual's recreation activity or choice (Jackson 1993). Constraints that influence participation can be intrapersonal (stress, shyness, lack of skill, language), interpersonal (lack of others to go with, discrimination, lack of family support), and structural (access, lack of facilities, transportation, lack of information) (Crawford and Godbey 1987, Godbey et al. 2010). All individuals face constraints to some degree, but they often can overcome or negotiate through them and continue to participate. Minority groups have been consistently documented to face higher constraints than other groups (Sharaievska et al. 2010, Stodolska 1998, Stodolska et al. 2020). Ultimately, participation in outdoor

recreational activities like fishing is the product of interactions among constraints, motivations, and negotiation strategies (Hubbard and Mannell 2001). Motivation levels and ability of individuals to negotiate or work through constraints will determine participation (Jackson 2000, White 2008).

Although nationwide participation in recreational freshwater fishing has been at a steady rate the past couple of years, only 19% of participation was represented by non-White individuals (Recreational Boating and Fishing Foundation and Outdoor Foundation 2020). Low historic participation, cultural patterns, education, and financial resources are among the factors believed to influence minority exposure to recreational fishing (Hunt and Ditton 2002). Some reports have suggested that lower disposable incomes (Anderson and Loomis 2005) and costs (Recreational Boating and Fishing Foundation and Aquatic Resources Education Association 2016) associated with fishing may deter angling participation by underrepresented groups. Stodolska et al. (2020) claim that not only do minorities experience constraints that Whites do not, such as language barriers and discrimination, they experience these constraints more strongly.

Schroeder et al. (2008) identified strategies that could facilitate minority participation in fishing, such as culturally relevant communication, educational opportunities, urban fishing programs, and placing an emphasis on social benefits. Having social support or a family history of fishing was characteristic of African American survey participants in Serenari and Peterson's (2018) evaluation of cultural relevance to minorities in fishing. Hunt and Ditton (2002) found that African Americans and especially Latinxs typically fish with friends and family more than do Whites, but African Americans were more likely to fish alone than Latinxs and Whites. Efforts in R3 to understand and respond to a diverse statewide audience should account for the cultural experiences and history of these groups while exploring interactions between fishing motivations and constraints to participation (Schneider and Wynveen 2015). Shores et al. (2007) suggest that while it may be difficult to make a wide range of sociodemographic considerations in planning, it is necessary to increase participation in recreational activity. Serenari and Peterson (2018) stress that minority perspectives should directly inform recreational planning, rather than "assimilating minorities into the dominant sportsperson culture."

Because minority participation in fishing is lower compared to traditionally over-represented groups, random sampling does not typically provide adequate minority-associated data to adequately inform recreational fisheries planning (Hunt and Ditton 2002). Moreover, a random sample approach to stakeholder data collection limits the ability to examine specific population segments for differences and similarities, thus increasing the chance to miss im-

portant details about their participation (Toth and Brown 1997). Rather, we should examine them independently with respect and attention to detail. Qualitative research is a scientific form of investigation designed to collect in-depth contextual information as it applies to a particular issue and population (Creswell 2007). Qualitative research is frequently applied to topics where there has been little previous research, where the audience under study is a small subset of the overall population, and/or a deep understanding of the topic is required from the participant perspective. Data collection is designed to give participants a voice to share their own insights, interpretations, and experiences in their own words. It involves a form of textual analysis where participant quotes are the units of analysis.

In this form of research, the researcher is responsible for systematically analyzing the data, drawing inferences, and ensuring quality of the research (Creswell 2007, Morse et al. 2002). The researcher analyzes the data to look for consistent themes. Themes are common ideas, or categorization of participant answers, which are then coded in an iterative manner throughout the data collection and analysis phase (Miles and Huberman 1994). More colloquially, themes can be thought of as search terms on the internet where the word or phrase you search will lead you to similar content. If the content found is not exactly what is desired, then search terms can be adjusted in an iterative fashion to find desired content. The reverse process is used in thematic development; content is examined to find those key themes or ideas that best represent what is being said by the participants. Themes are organized with sub-themes; for example, under a motivation theme could be different types of motivations such as social connection, consumption, and escaping stressors. The goal is understanding a range of ideas within or across populations rather than make generalizations about individuals within that population (Krueger and Casey 2009). Purposive, instead of random, sampling is used to identify participants that can best inform the research (Creswell 2007, Krueger and Casey 2009). Additional data is collected until no new information is being provided by each subsequent effort, to the point of what is termed saturation (Morse et al. 2002, Morse et al. 2014). Validity and reliability are developed through techniques such as peer checking to ensure that the themes are consistently coded throughout the data set and saturation to ensure that the full range of ideas have been documented (Creswell 2007).

Similar to other states, historic participation in recreational freshwater fishing in Alabama has been low amongst minority population segments. Approximately 11% of the state's White population purchased fishing licenses between 2012 and 2017 whereas only 3% or less of minority populations purchased licenses (Alabama Department of Conservation and Natural Resources, Fish-

eries license database 2011–2017, unpublished raw data). The purpose of this study was to gain a better understanding of outreach and education needs of African American and Latinx population segments in Alabama. Specifically, our objectives were to identify 1.) fishing related experiences, values, and motivations, 2.) constraints that may prevent individuals of these segments from fishing in public water, and 3.) constraint negotiation strategies that may enable them to increase their participation.

Methods

We used focus groups, or small group interviews with focused discussion, to collect qualitative data for this research, since focus groups can target specific, often underrepresented, user groups (Krueger and Casey 2009). Homogeneous focus groups formed of 5–10 individuals are recommended as those have been shown to provide an environment where participants are the most comfortable and willing to share their perspectives (Krueger and Casey 2009). Topical, open-ended questions were used to avoid a constrained set of answers as well as to elicit participant perspectives

without leading the discussion. Questions were designed to facilitate participant interaction and dialogue, with follow-up probes used to prompt more detailed explanations (i.e., “Could you elaborate on what you mean by that?”).

Our study collected data separately from African American and Latinx stakeholders in seven urban and rural areas across Alabama (Figure 1). Latinx is used in this study as a means to group all individuals with a historical background in Latin America, including those countries where the languages of Spanish, Portuguese, and French are spoken. To improve our understanding of angling preferences, we designed the sampling to provide a range of contexts that we believed might influence minority fishing experiences and constraints. We selected communities with ranging proportions of minority segments, a history of freshwater fishing purchases, and nearby public fishing areas; exceptions were one urban area (Birmingham) and one rural area (Boaz), both of which required more than 25 km of travel to desirable fishing sites.

With the help of county extension program officials, we identified key contacts who were trusted community members with

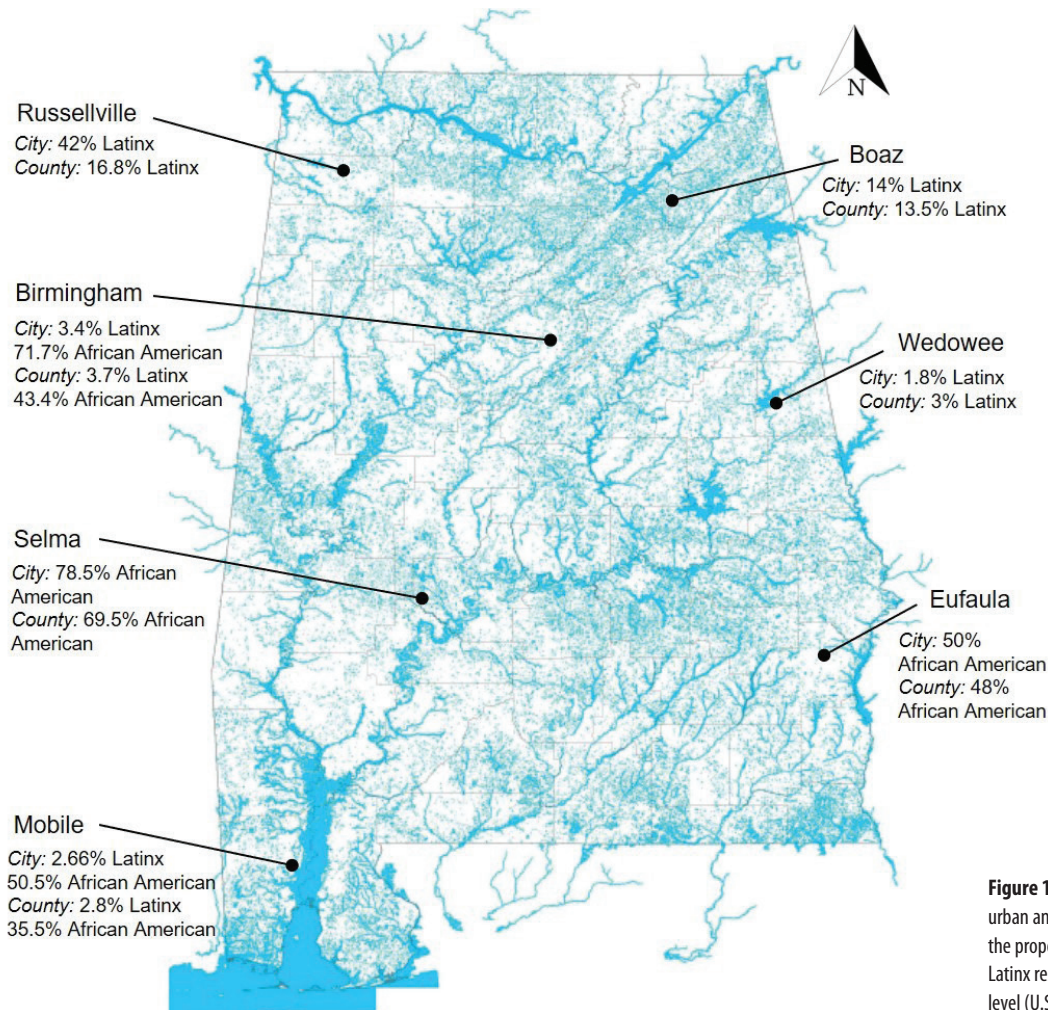


Figure 1. Locations of study sites in urban and rural areas across Alabama and the proportions of African American and Latinx residents at the city and county level (U.S. Census Bureau 2017).

community development experience and had access to local anglers. We provided in-person training to these selected focus-group organizers to prepare them to assist with the groups and recruit participants. Focus-group organizers used snowball sampling to recruit participants for focus group meetings in their respective areas. This technique involves participants identifying other participants for a study, creating a snowball effect (Onwuegbuzie and Collins 2007). Target participants were individuals self-identifying as African American or Latinx, aged 19 years and older, who were Alabama residents, and interested or engaged in recreational freshwater fishing. Each organizer sought participant diversity in age, gender, and fishing interest. Fear surrounding participation limited our ability to form Latinx groups in some areas of interest (Eufaula, Athens, and Albertville) and made it difficult to recruit participants in all locations where we conducted groups. Participant availability and the organizer’s ability to coordinate the meeting ultimately determined the group size.

Focus Group Meeting Administration and Question Development

We conducted focus-group meetings in spring 2018 at convenient times and mutually agreeable community locations that organizers identified as comfortable and familiar for participants (Morgan et al. 1998). These locations included a community center, library, church, residential home, and extension office. We conducted additional focus groups until the point of saturation, or until further data collection did not provide additional insight about minority fishing behavior (Glaser and Strauss 1967, Morse et al. 2014).

African American meetings were led by trained organizers, while a bilingual Latinx member of the research team moderated the Latinx meetings in Spanish. Focus-group discussion proceeded according to our list of scripted questions following the fishing R3 path (Table 1). The questions were designed to identify attitudes and beliefs about fishing and how they see themselves in the sport, what motivated them to fish, the constraints they face and how they would work through them, and information and service related needs. We asked additional probing questions if needed to facilitate dialogue (Table 1). The probes addressed specific attitude, belief, motivation, constraint, and negotiation items that had been identified in previous studies to influence recreation participation. Social connection motives (White 2008), cultural relevance (Serrenari and Peterson 2018), and racial discrimination and bias constraints (Schroeder et al. 2008, Stodolska et al. 2020) are among these. The guiding questions and probes were open-ended allowing participants to elaborate in their own words on the topic.

Table 1. Guiding questions and probes used to facilitate focus-group discussion for Latinx and African American anglers at nine focus-group meetings at seven locations in Alabama.

Questions	Probes
How did you get started with fishing?	Where were you when you first learned to fish? What did you catch? Who were you with/did someone introduce you?
What are your reasons for going fishing?	Do any of these motivations apply to you: being outside in a natural environment, spending time with friends and family, to relax, for fun, fishing is an important part of my culture? How is fishing perceived by your culture?
How have you been made aware of fishing opportunities or received fishing related information in the past?	How would you prefer to receive information? Is language ever an issue for you?
What has prevented you from going fishing, or going as often as you would like?	Do any of these constraints apply to you: not having fishing skills or abilities, living in an urban area, lack of bodies of water or clean water/natural surroundings, no knowledge of fishing or where to go, lack of fishing equipment, cost of fishing equipment? Is race or discrimination ever an issue for you? How do you feel about the costs?
What would increase the chance of you fishing more in the future?	Do any of these apply: fishing opportunities- places to go, access to equipment and/or boats, mobile fishing guides?
What activities are you taking part in instead of fishing?	How do you benefit from those activities? What makes it easiest to participate in those activities?
What has kept you, or people that you know, active in going fishing, and why? Alternatively, why have you or people that you know, stopped fishing?	

Data Analyses

The meetings were audio recorded then translated and transcribed using Microsoft Word. The data were exported to NVivo qualitative data analysis software (QSR International 2018) which allows the researcher to identify and highlight text that is associated with different ideas or themes. All of the text from each focus group was categorized according to the different themes that emerged from the discussions during the focus groups. These themes were listed as codes (i.e., search terms) and given a definition. New themes were defined (i.e., with an idea that was not discussed at an earlier focus group) or revised (i.e., grouped together into a bigger idea or divided to identify separate ideas) in an iterative process until all the focus groups had been coded consistently. Eventually, we were able to search all of the text from all of the focus groups by individual coded themes. The text associated with each code was the unit of analysis and was presented as a quote. Examples of themes from our study include: being in nature as a motivation for fishing, availability of time as a constraint to participation, and having access to a boat as a constraint negotiation. The primary researcher searched all the text from all the focus groups

associated with each code and a peer researcher independently checked the coding for consistency. Additionally, peer researchers used the codebook of themes and their definitions to independently code uncoded text to look for consistency. Both of these methods were used in this research to ensure reliability. In addition to understanding and analyzing the different coded themes, themes were analyzed by focus group characteristics (urban, rural, African American, Caucasian) for more detailed understanding.

While over a hundred motivations (Moore and Driver 2005) and many dozen constraints (Godbey et al. 2010) are identified in the literature, the lists in our tables depict the range of discussion of important factors as they were perceived by our study participants. Thus, the short list of motivations and constraints we identified as important to these populations in Alabama is the first key finding from this research. We report the percentage of focus groups that discussed each motivation, constraint, and constraint negotiation theme if it was mentioned at least once. A theme mentioned by only one group it is not necessarily less important than a theme reported by a higher percentage of the groups. However, a theme reported by only one population segment and not the other does demonstrate a difference.

Results

Nine groups were conducted before we reached the point of saturation. Data were collected from a total of 69 participants (Table 2). Each group was comprised of 5–10 minority participants. We conducted one meeting per rural area with either African Americans or Latinxs, and one meeting with each of them per urban area. Five of the groups were comprised of Latinx participants and four were represented by African Americans. Focus-group discussion lasted between 80 and 120 min and all 69 participants or sources contributed to the discussions, though not necessarily to each question or prompt. The focus-group discussions resulted in 133 codes fitting major themes related to recreational fishing R3 such as recruitment (childhood, groups or clubs, self-taught), motivations (consumption, relaxation, social connection), constraints (time, access, fishing license), and constraint negotiations (social support, physical ability, knowledge and skills).

Our overall results indicated that participants had varying levels of interest and engagement in fishing, but all deemed it a worthwhile and beneficial activity or sport. Both population segments expressed that fishing is important to their culture, and that teaching the next generation to fish is valuable. African Americans emphasized these sentiments more than Latinxs. Both segments agreed that more opportunities for young people to learn how to fish are necessary and that it is now more important to do things together as a family and minimize time on electronic devices.

Table 2. Description of focus-group meetings and representation of minority population segments at nine focus-group meetings at seven locations in Alabama.

Location	Group type	Number of participants	Duration (min)	Meeting location
Boaz	Latinx	10	100	library
Birmingham	African American	5	82	community center
Birmingham	Latinx	8	87	community center
Eufaula	African American	7	80	church
Mobile	African American	5	120	Extension office
Mobile	Latinx	7	87	church
Russellville	Latinx	10	90	community center
Selma	African American	7	82	Extension office
Wedowee	Latinx	10	90	private residence

Therefore, we found that angling was culturally important across the range of geographic and demographic contexts.

Participants were largely recruited, or introduced, to fishing by family members and friends. Most were introduced in youth or childhood, but experiences described by Latinxs in many of the groups differed from African Americans in that they took place outside of the United States and often were in a coastal setting. A small number of participants reported becoming involved in fishing by way of a group or club; some African Americans learned on their own, but no Latinxs reported being self-taught. Many participants indicated that they had never received fishing related information or information introducing them to fishing in Alabama by means such as print media, social media, TV, word of mouth, signage, radio, or mail/email.

Both minority segments indicated fish consumption, enjoyment, social connection, relaxation, and escaping stressors as significant motivations or reasons for going fishing (Table 3). A greater emphasis was placed on relaxation and escaping stressors or “clearing your head” among the African American groups; whereas, social connection was emphasized more in Latinx groups. In every focus group conducted, participants talked about being motivated by wanting to teach the children in their lives, whether for enjoyment or to feed themselves: “I go to spend time with my family and to catch fish so that we can eat fresh fried fish.” “My daughters like to go, and that’s the main reason I go.” The significance of fish consumption was not limited to themselves or their families, as many groups made comments about sharing with others as a way of life. “Seeing the smile on the elder’s face when you bring them fish” is what one participant described as the most enjoyable part of fishing—giving back to those that gave them their skills. Being out in nature and engaging in learning and developing skills were mentioned frequently across groups of both segments. Excitement or the “thrill of it,” feeling hooked or “addicted” to the activity, competition, and saving money, were fishing motivations less frequently cited by the participants.

When asked about retention or motivations for continuing par-

ticipation, spending time with family and friends was the most frequently mentioned reason, followed by enjoyment. African Americans reported physical activity to be a retention motive but Latinxs did not. Other retention motives for African Americans and Latinxs were relaxation and feeling at ease, being outside and in nature, finding common ground and comradery with others, escaping stressors, excitement, and competition. African Americans in multiple groups referred to the competitive nature of fishing that entices them to stay involved in the sport (i.e., “to earn bragging rights.”)

We found fishing information, education, outreach, and general awareness to be significant areas of need for both segments. Participants mentioned a range of structural, intrapersonal, and interpersonal constraints to going fishing (Table 4). The most frequently communicated constraints were fishing licenses, knowledge and skills, time, work, and access points—themes that were more prevalent in discussion across the Latinx groups. While purchasing a fishing license was mentioned in some of the African American groups, it was the most significant constraint to participation in fishing communicated by the Latinx segment. Catch constraints were not reported by African American groups but were reported in one Latinx group, while physical ability and safety constraints were only reported in African American groups.

The topic of fishing licenses dominated discussion across all five Latinx meetings. Knowing where to get a license, the requirements for a license, and what the license permits, are key pieces of information that they felt were not being communicated effectively. “There isn’t information about where you can get the license, what you need to be able to get a license, and people are afraid” was one such reply. Furthermore, the majority of Latinx participants stressed the importance of having “permission” to fish and feeling confident that they are “allowed” to participate in such an activity: “I don’t know where fishing is allowed and we don’t want to have problems with the law.” Outreach recruitment and retention efforts are invitations to participate. Historically, these efforts have not been specifically targeted at common sources for the Latinx community nor in the Spanish language.

Leisure time availability and work commitments were widely communicated in the groups as intrapersonal constraints, with time referred to as a general feeling of not “having time to go.” These are closely related themes, but participants mentioned them separately. Additionally, knowledge and skills related to equipment and gear, how to fish, where to go, and how to get involved in fishing, present significant challenges to them going fishing. For example, a Latinx participant replied, “I don’t know where to go, when you can fish, if you can fish from a bridge, the shore, in a boat. Because I don’t know where and don’t know how to find information, I don’t go.”

Table 3. Motivations for recreational freshwater fishing reported by African American ($n = 4$) and Latinx ($n = 5$) minority population segments in nine focus-group discussions in seven locations in Alabama. Numbers in each column are percentages of each population segment that mentioned each theme.

Motivation theme	% African American	% Latinx
Competition and achievement	100	100
Consumption	100	75
Enjoyment	100	25
Escaping stressors	100	80
Excitement	100	100
Knowledge and skills	75	60
Nature	100	40
Physical activity	25	0
Relaxation	100	80
Saving money	25	20
Social connection	100	100

Table 4. Constraints to participation in recreational freshwater fishing reported by African American ($n = 4$) and Latinx ($n = 5$) minority population segments in nine focus-group discussions in seven locations in Alabama. Numbers in each column are percentages of each population segment that mentioned each constraint.

Constraint type	Constraint theme	% African American	% Latinx
Structural	Access	75	80
	Boat	25	40
	Costs	75	20
	Fishing license	50	100
	Regulations	25	20
Intrapersonal	Catch	0	20
	Equipment	25	20
	Knowledge and skills	75	100
	Language	0	100
	Physical ability	25	0
	Safety	50	0
	Swimming	25	20
	Time	100	100
	Weather	75	40
	Wildlife	75	40
Work	100	100	
Interpersonal	Discrimination	100	100
	Home life	25	100
	Social support	50	80

Language constraints further complicated going fishing according to the Latinx groups. When discussing a lack of knowledge about purchasing a license, some participants indicated that even completing the application was a deterrent, and commented, “Sometimes it is translated into Spanish, but the questions are complicated and some people still misunderstand.” Others mentioned unsuccessful attempts at retailers: “I tried to get one at Walmart with a passport and they told me I needed a [driver’s] license. On-

line I could not enter the passport numbers because there weren't the right number of digits." Most frequently, Latinx participants indicated they did not "hear anything in Spanish" and are lacking basic fishing information.

In addition to the structural constraint posed by fishing licenses, access to bank fishing sites and not having a boat constrained many African Americans and Latinxs. Participants indicated that without knowing people who have private access (pond, dock, or bank), they were significantly limited due to few bank-fishing spots on public waters. African American groups emphasized this more strongly. These responses related to structural constraints were consistent across the urban-rural landscapes.

All groups talked about racial discrimination and bias as a constraint to their fishing participation but did not emphasize it as strongly as the previously mentioned constraints. Conversation in several of the groups indicated that discrimination, or race, was not an issue, or that sources had not personally experienced any issues. However, once probed, other groups described experiencing uncomfortable situations or perceiving different treatment. Whereas some participants did not experience different treatment firsthand, they reported experiences of others that had. For instance,

"One time I found out that in [local town] there was prejudice and when Latinxs came or other ethnic group I heard they wanted to get them out. Sometimes someone caught the fish, and they were Latinx and if there were others who had not caught anything—there would be conflict. People were afraid to go. They tried to make it so that people did not want to go. This has not happened to me, but to others."

Other participants cited direct experiences where they were treated differently or encountered mistreatment. These experiences kept some families from going fishing, fishing in particular spots, or feeling welcome. In one case, a participant noted, "I have felt discriminated against. The day my husband got a ticket for fishing, there were other Americans and the authorities didn't go to them." An African American participant recalled that while fishing at a public body of water "golf balls (were) hit in my direction" by a White man in an apparent attempt of intimidation.

When asked about negotiations to the intrapersonal, interpersonal, and structural constraints to fishing participation, Latinxs most frequently replied that if they could get a fishing license, they would go fishing or go more often (Table 5). "If I had a license, I would spend more time fishing with my family." Having more fishing knowledge and skills was one of the most communicated constraint negotiation themes for both minority segments. Additionally, having time, access to fishing spots or a boat, and social support were frequently mentioned across all groups as negotiation strategies.

Table 5. Negotiations to the constraints to recreational freshwater fishing participation reported by African American (*n* = 4) and Latinx (*n* = 5) minority population segments in nine focus-group discussions in seven locations in Alabama. Numbers in each column are percentages of each population segment that mentioned each negotiation theme.

Constraint negotiation type	Constraint negotiation theme	% African American	% Latinx
Structural	Access	100	100
	Boat	100	100
	Fishing license	100	25
Intrapersonal	Equipment	50	0
	Knowledge and skills	100	100
	Language	0	100
	Physical ability	25	0
	Time	100	100
	Work	60	70
Interpersonal	Home life	25	20
	Safety	25	0
	Social support	100	100

Latinx groups often commented, "I work a lot, but if I had a license, I would make time to go." However, African Americans more commonly emphasized access as a constraint negotiation. "I would like being able to fish more in ponds, and also to have a kayak so I could go to locations I can't reach by walking on the bank" was a typical response across multiple groups. Both segments also mentioned an alleviation of familial obligations and just "making it happen." African American participants differed from Latinx in reporting physical ability, increased safety, and equipment negotiations. Aside from those who are not actively participating in fishing due to license constraints, other participants indicated that they would reactivate in fishing if family member obligations were resolved or life circumstances changed.

Latinxs wanted information offered in both English and Spanish, and advertised via print, radio, TV, and social media. "I would like to have brochures/flyers in Spanish that we can understand." They suggested these types of efforts would be effective in their communities and could increase participation in fishing, "Everyone needs to know this info, not just us. There are newspapers in Spanish here in stores, and probably all over the state. With newspapers, one person reads the information and then shares the information with others in their communities." Many indicated a desire for one-on-one communications and believed that a point of contact could facilitate participation. For instance,

"It would be good to give out brochures/papers at the school so that the parents could receive them. Using social media, such as Facebook or Twitter, would reach the general public. There needs to be a contact person provided so that people can ask questions easily through email. Make sure their questions are promptly answered."

Both segments brought up free fishing days and participants showed a high level of interest in having these types of opportunities,

“It would be good if there were somewhere that they announced that there are open days that you could fish—when you don’t need a license. More people would go on these days. It could be announced on radio, TV, so the community would know.”

Many felt that educational opportunities would be beneficial. For instance, “an education or seminar about informing people about where they can fish and where they can’t fish and how to find that information.” As one participant stated, “education is everything.” They said it was a way to “bring it to the people so they can learn” and open doors for them. Ultimately, they would be able to “encourage the next generation to fish.”

Discussion

The focus-group approach to our study allowed for relationship building among participants and researchers that we believe would not have been possible through other collection methods. During the meetings, participants fully engaged and exhibited pride about sharing their experiences and having their voices heard.

Focus-group discussion themes indicated that the two minority segments view recreational fishing as an activity or sport that is culturally relevant and valuable, but perceived and encountered intrapersonal, interpersonal, and structural constraints that influenced their participation. Further, lack of fishing exposure may be a limiting factor. These are important implications for recruiting and retaining participants.

We found many similarities across African American and Latinx discussions, but some themes were emphasized more strongly by one segment than the other. Apart from physical activity, motivations to fish were consistent across groups. Latinxs emphasized social connection more, whereas African Americans mentioned relaxing and escaping stressors more frequently. General awareness about opportunities, basic fishing information, and regulations was low for both segments. However, all participants exhibited a great desire for education, outreach, and opportunities to fish. This indicates a gap in minority outreach and education often exists. Both Latinx and African American segments reported that increased general awareness about how to get information, where to go, and fishing mentors or companions would encourage greater participation. Structural constraints pertaining to information and awareness should be a strategic focus area in R3. Stodolska et al. (2020) regarded this as a shared responsibility, and not solely the individual’s responsibility to figure out, as some constraints

are a result of how providers serve public users. Using minority perspectives to inform R3 efforts will strengthen the ability to target them directly through recruitment marketing such as bilingual materials and locations or sources for disseminating information (Serenari and Peterson 2018).

Schroeder et al. (2008) reported race and discrimination presented strong interpersonal barriers to participation. Both segments in our study discussed discrimination, including selective law enforcement, but did not describe it as a significant constraint to their participation. However, similar to the findings of Stodolska et al. (2020), a fear among Latinxs with respect to government-affiliated interactions exists, especially surrounding profiling, language barriers, and not understanding the rules and regulations. The general concern is to avoid getting in trouble for anything.

Fishing licenses as potential barriers to participation dominated all aspects of Latinx recruitment, retention, and reactivation. They would also like to feel welcome or invited (i.e. targeted marketing and outreach) to participate in fishing of public water, and communication in Spanish. These lacks have negatively influenced their participation. Schroeder et al. (2008) reported limitations in participation among Latinx focus group participants due to fishing license concerns and a lack of fishing related information in Spanish. Serenari and Peterson (2018) suggested that appealing to and building a community among prospective participants is warranted in minority recruitment to recreation. As such, fishing programs and communications provided in their own language will be more effective in helping Latinxs to work through some of their intrapersonal constraints.

Contrary to what other studies have identified as a strong barrier to minority participation, we did not find that equipment (Recreational Boating and Fishing Foundation 2019) or participation costs (Stodolska et al. 2020) seriously constrained participants. For African Americans, the topic of access to public water was prevalent in their responses. Given the variation in availability of opportunities for recreation, urban and rural differences can occur in factors associated with constraints and interests (Schroeder et al. 2008). However, urban and rural differentiation did not appear to play a significant role in the responses that we received from either segment. Participants frequently discussed access to public water as a constraint but indicated a willingness to travel to attractive access points. This contrasts with Burns et al. (2008) findings that transportation represented a significant constraint in Latinx outdoor recreation activities.

In the current political and social climate, with ongoing debates about citizenship and immigration, the fear surrounding participation in our study limited our ability to develop groups in some sites and to recruit participants. We also found that group size in-

fluenced discussion. In larger groups, individuals were more likely to say that they agreed with what others said and contributed little new to a specific question. The thematic insight we gained through the groups is a first step in exploring minority fishing behavior and cannot be generalized to the population of Alabama.

Out of the many possible motivations (Moore and Driver 2005) and constraints (Godbey et al. 2020, Stodolska et al. 2020) identified in the literature, our study identified 11 primary motivations and 19 constraints for African American and Latinx anglers in Alabama. There were a few notable differences where one population identified a theme (e.g., language as a constraint) that the other did not. Administrators should take note of these specific motivations and constraints and of the significant overlap of these minority populations as they develop their recruitment, retention, and reactivation materials. Management and messages targeted at these specific populations should reflect these findings to help alleviate the constraints and to make them feel welcome and invited through outreach and extension, publications, license applications, and the website.

Our study initiated dialogue between the Wildlife and Freshwater Fisheries Division, Extension, and a minority audience. Solutions to the interpersonal, intrapersonal, and structural recreational fishing constraints identified by the participants include 1.) making fishing related information more readily available 2.) promoting awareness of rules, regulations, and license purchasing 3.) providing opportunities for families to be involved, and 4.) improving access to public fishing waters. We have used the information obtained in this study to inform the development of a statewide survey to collect quantitative data on participation, motivations, constraints, and constraint negotiations of all licensed anglers—including these minority groups. By addressing education and outreach needs of these segments and the tools necessary to remove barriers to participation, we are better equipped to address R3 efforts in Alabama and beyond.

Acknowledgments

This article is based on a study supported by the Alabama Cooperative Extension System, the Alabama Department of Conservation and Natural Resources Wildlife and Freshwater Fisheries Division (WFF) and the Sport Fish Restoration Program.

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