COMMUNITY PARTICIPATION IN PRESERVATION OF LOWCOUNTRY SOUTH CAROLINA SWEETGRASS (*MUHLENBERGIA FILIPES* [M. A. CURTIS] J. PINSON AND W. BATSON) BASKETRY[1]

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Hart, Zachary H., Angela C. Halfacre *(Master of Environmental Studies Program and Department of Political Science, College of Charleston, 66 George St., Charleston, South Carolina 29424, USA; e-mail: density27@hotmail.com and halfacrea@cofc.edu),* **and Marianne K. Burke** *(USDA Forest Service, Southern Research Station, Center for Forested Wetlands Research, 2730 Savannah Hwy., Charleston, South Carolina 29414, USA; mburke@fs.fed.us).*
COMMUNITY PARTICIPATION IN PRESERVATION OF LOWCOUNTRY SOUTH CAROLINA SWEETGRASS (*MUHLENBERGIA FILIPES* [M. A. CURTIS] J. PINSON AND W. BATSON) BASKETRY. *Economic Botany 58(2):161–171, 2004. Sweetgrass (*Muhlenbergia filipes [*M. A. Curtis*] *J. Pinson and W. Batson)* *is a coastal, nontimber forest resource ranging from North Carolina southwestward to Texas. The plant has special cultural and economic importance in coastal South Carolina, where the local Gullah community uses this resource in a form of coiled basketry. The plant is becoming increasingly unavailable to basket makers, however, because of habitat destruction, habitat limitation, and private ownership of the resource. This study examines stakeholder involvement in and perceptions of past and current sweetgrass management. Twenty-three interviews were conducted with Charleston, South Carolina area basket makers and were analyzed for emergent themes using content analysis, a technique permitting objective analysis of text. Survey respondents identified residential development as a major cause of sweetgrass inaccessibility and indicated that purchasing raw materials has become standard practice. Furthermore, respondents indicated several potential solutions to the problem and expressed their willingness to contribute time to management efforts.*

Key Words: Conservation; *Muhlenbergia filipes*; non-timber forest resource; South Carolina; sweetgrass basketry.

Current developments in environmental policy have increasingly emphasized public participation in decision-making processes (Beierle and Konisky 2000). As our awareness of the insufficiencies of traditional hierarchical, command-and-control environmental management strategies has increased (Parker and Selman 1999), the push for more public participation has been driven largely by optimism about its ability to improve the quality of environmental decisions (Beierle and Konisky 2000). Avenues for public participation vary widely, including public hearings and forums, citizen committees, referendums and initiatives, surveys, and focus groups. Although it is generally agreed that public involvement in environmental decision making produces more widely accepted outcomes, there is no overarching, unifying theme that explains why some programs work and others fail (Beierle and Konisky 2000; Spyke 1999). Many questions exist about the most effective venue for eliciting public involvement in various scenarios. Although it is widely embraced, public involvement is a concept that is far from refined, and debates about the quality and process of public involvement abound.

In the South Carolina Lowcountry, an environmental issue of local importance offers a great opportunity to incorporate public involvement into decision-making processes and provides a framework for eliciting stakeholder input in similar scenarios. The issue is dwindling supplies of sweetgrass (*Muhlenbergia filipes* [M. A. Curtis] J. Pinson and W. Batson), a native coastal grass that is used by local Gullah people in a form of coiled basketry first practiced in Africa.

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Sweetgrass baskets are a source of income and cultural pride for many of those who make them, and the baskets have become an historical icon for the Charleston, South Carolina area where most of the baskets are made and sold. The sweetgrass on which basket makers depend, however, has become increasingly scarce because of habitat destruction and limitation. Furthermore, many large sweetgrass populations that do exist are inaccessible to basket makers because of private property restrictions. Some basket makers now buy the material at high costs from others who travel as far as Georgia and Florida to harvest or ''pull'' the grass, and unless local supplies are made more widely available, the art form may soon disappear.

In this study, we conducted a survey of basket makers in the Charleston area to assess how best to undertake future sweetgrass management and incorporate stakeholders into those efforts. We interviewed 23 basket makers about their use and management of the resource as well as their concerns and ideas regarding the scarcity and inaccessibility of sweetgrass. Using content analysis, a technique to draw data objectively from text, we identified in interview transcripts multiple themes that address our research question: What are stakeholders' views of and roles in past and current sweetgrass management? In addressing this question, we provide the foundation for a sweetgrass management plan. More generally, we illustrate a democratic, non confrontational methodology for incorporating public involvement into local environmental decision making.

South Carolina Lowcountry Coiled Basketry

South Carolina Lowcountry coiled baskets are presently constructed from four primary plant materials: blades or ''threads'' of sweetgrass, strips of the leaves of palm (*Sabal palmetto* C. Loddiges), needles of the longleaf pine (*Pinus palustris* P. Miller), and cuttings of black rush (*Juncus roemerianus* G. Scheele). Although three of the four plants used in the baskets are fairly widely available through collection in the wild or cheap purchase from collectors, sweetgrass is needed in the greatest quantity but is the most difficult one to obtain (Derby 1980). Sweetgrass is a long-stemmed plant that occurs naturally in clumps landward of the second dune line at beaches, as well as in the boundaries between marsh and woods (Rosengarten 1986). The former of these two habitats has been identified with a number of terms including ''maritime wet grassland,'' ''mesic slack,'' ''dune trough,'' and ''low interdune meadow'' (Ohlandt 1992). In their description of the maritime wet grassland, Schafale and Weakley (1990) list *M. filipes* as a dominant species. Landowners have traditionally burned these coastal plain habitats to prevent the growth of thick shrubs and scrub trees (Barry 1980), but the current regulation of this practice allows hardier species to encroach upon the area. Sweetgrass collectors have traditionally distinguished between a ''coarse'' grass that grows in more sunlit areas and a ''fine'' grass that results from growth in deeper shade (Derby 1980), but some basket makers presently also distinguish a medium-gauge grass that is especially versatile for basketry. Perdue (1968) argues that the very name of the plant, sweetgrass, is an ill-applied misnomer that probably resulted from confusion with true sweet grass, *Hierochloe odorata* (L.) G. Wahlenberg, which occurs in much of Canada and the northern United States and has been used in comparable forms of Native American basketry. The term ''sweetgrass basket'' has claimed an identity of its own, however, and admirers of the baskets usually enjoy the mildly fragrant, hay-scented material. For some time, there was considerable debate about whether sweetgrass was a variety of another Muhly grass (*Muhlenbergia capillaris* [J. Lamarck] C. Trinius) or a distinct species (Rosengarten 1986), but Pinson and Batson in 1971 determined sweetgrass to be morphologically distinct from *M. capillaris.*

Sweetgrass basketry is practiced almost exclusively by the descendants of enslaved Africans brought to the South Carolina coast from western Africa for labor on rice plantations. Known as the Gullah people, this close-knit community resides in the state's Lowcountry, including its many nearby sea islands, in parts of Florida, and in coastal and island Georgia, where they are more commonly referred to as Geechee people (Gullah/Geechee Special Resource Study 2001). Basket-making skills were carried over from slaves' homelands and quickly adapted to raw materials available on the Lowcountry coast. The basketry was introduced to the United States in the late 17th century (Rosengarten 1986), documented as early as 1730, and commonplace on southern plantations by

1850 (Teleki 1975). The early history of the Lowcountry basket parallels the rise of rice culture (Rosengarten 1986, 1997). Initially, men dominated the craft (Derby 1980), and baskets were constructed with thick and tough black rush (*Juncus roemerianus*) combined with thin splits of white oak (*Quercus alba* L.) or strips of saw palmetto (*Serenoa repens* [Bartram] J. K. Small) for binding (Rosengarten 1986). These baskets were used for everyday agricultural and household purposes and were viewed more as objects of necessity than objects of art. Around the turn of the 20th century, however, a group of black families in Mount Pleasant, South Carolina, began mass-producing more delicate ''show baskets'' made from sweetgrass and bound with strips of palmetto leaf (Rosengarten 1986). Sales of these baskets provided important income for basket makers during the agricultural depressions that followed the 1890s, hurricanes of the early 1900s, and the arrival of the boll weevil in 1918 (Rosengarten 1986). From at least the 1920s, many men began leaving farms for the military and for employment in the growing industrial sector (Derby 1980), and about this time, women came to dominate the craft (Rosengarten 1986). Baskets produced by Lowcountry artisans most closely resemble those produced in Senegambia, Angola, and the Congo (Rosengarten 1986, 1997; Twining 1978). Teleki (1975) asserts that Lowcountry baskets so closely resemble recent Senegambian baskets that the two are difficult to distinguish. Rosengarten (1986) has provided a comprehensive examination of the preparations and techniques used with these raw materials. Although a variety of basket forms have evolved since the introduction of the art to the Southeast, the basic designs used centuries ago are still produced and sold by most basket makers today.

One of the first academic treatments of sweetgrass basketry was offered by Perdue (1968). In his report, the author misidentifies the main component of the sweetgrass baskets as *Sporobolus gracilis* (C. Trinius) E. Merrill and gives a rather unflattering description of the artistic process and the baskets themselves. In contrast, Derby (1980) insists that the construction of the baskets requires a great deal more thought, energy, and work than the average person not involved in production would expect. In any case, sweetgrass baskets are currently highly prized and provide a major source of income for many of those who make them. Sweetgrass baskets have been displayed at museums and exhibits all over the world. As the art of coiled basketry has radiated from the Mount Pleasant area when basket makers married or moved away (Rosengarten 1986), the baskets have become well recognized and sought after as pieces of art (Fig. 1). As early as 1975 (Teleki 1975), however, it was recognized that residential development in Mount Pleasant—with associated habitat destruction and private property restrictions—was decreasing supplies of the resource. Additionally, fire suppression and possibly changes in moisture saturation levels have markedly reduced the extent of sweetgrass habitat (Burke et al. 2003). Heavy commercial development in the primary area where baskets are sold is dislocating some basket makers' places of business. The Gullah people who make sweetgrass baskets are threatened by lack of jobs, encroaching development, and diminishing population (Gullah/Geechee Special Resource Study 2001). Coiled basketry exists as one of the most visible vestiges of this culture, and the art form has a claim to history almost equal to the oldest objects produced in the region by non indigenous people (Rosengarten 1997). There exists a realistic threat that this culturally and economically significant form of basketry may soon disappear if raw materials become increasingly difficult to obtain.

Study Area

Sweetgrass baskets are sold at three main locations in the Charleston area. Most basket makers work from our primary study site, a stretch along Highway 17 North, the ''Old Ocean Highway,'' in Mount Pleasant, and extending north into adjoining Berkeley County, South Carolina. The basket makers sell their wares in this area from open-air, wooden display stands that line the shoulder of the busy highway (Fig. 1). Baskets are usually hung on nails on the stands to attract the attention of passing tourists as the artists work continually from within the stands or in their automobiles. These roadside displays date back to the early 1900s (Fig. 2), and their form and size evolved quickly with the paving and increased use of the highway in the 1920s and 1930s (Derby 1980). Today, many of the stands appear dilapidated and weather-beaten, but some have been refurbished or only recently constructed. A small number of stands have

Fig. 1. Upper: Exceptional coiled baskets made with sweetgrass, bulrush, pine, and palmetto; **Lower:** A modern basket stand along Highway 17 N in Mount Pleasant, South Carolina (photos 2002, by Zac Hart).

Fig. 2. An early basket stand with the artist working inside, 1938, by USDA Forest Service.

amenities like plastic walls to protect the basket makers from inclement weather, or enclosed wooden rooms attached to or nearby the stands. The first basket stand lies on the eastern side of the highway 0.7 miles north of the Highway 526 overpass in Mount Pleasant. From this point, the stands are almost evenly distributed on either side of the highway for approximately 9.5 miles. Approximately 81 stands lie along this stretch, but not all are still in use, and heavy development in recent years along the busy corridor continues to displace some basket makers. Basket makers typically occupy the stands during the late morning and early afternoon hours of pleasant days, Monday through Saturday. An occupied stand on a Sunday is an uncommon sight. Sweetgrass baskets are sold almost year-round from these stands, but many basket makers work from home during the harshest winter months to replenish their inventory for the upcoming tourist season.

Approximately 10 basket makers sell their wares in an area of downtown Charleston known as The Four Corners of Law at the intersection of Meeting and Broad Streets. This area served as our secondary study site. Here, basket makers work from lawn chairs or their automobiles and simply lay their products on the wide sidewalks to entice passing pedestrians. The vending hours and seasons of basket makers in this area are similar to those in Mount Pleasant, and again, vendors rarely appear on Sundays at the location.

Approximately 20 basket makers sell their wares in downtown Charleston's Old City Market. Originally constructed in 1841 and since then destroyed and rebuilt (Derby 1980), the market is today a heavily trafficked shopping area and major tourist attraction. Baskets at this location are sold either from display tables inside the market or at unsheltered spots just outside the four buildings that constitute the market. Both of these types of vending sites must be rented. Basket makers at this location typically occupy their vending sites more than those at others. Many basket makers in the market begin selling their wares in the early morning and sometimes do not leave until late evening. Basket sales on Sundays and throughout the winter are common. Often crowded and noisy, the atmosphere of the Old City Market is considerably different from other areas where sweetgrass baskets are sold.

Data and Methodology

To assess stakeholders' views of and roles in past and current sweetgrass management, we conducted 23 interviews with Charleston area basket makers between June 2002 and January 2003. Of these interviews, 13 were conducted at basket stands in Mount Pleasant and 3 at basket makers' vending locations at The Four Corners of Law in downtown Charleston. We conducted 4 of the 23 interviews at respondents' homes, 2 at public meeting spots (the Charleston County Library and the Sewee Visitor Center), and 1 at a basket maker's workplace. Although at least one Old City Market basket vendor was interviewed in the study, we did not use the market as a study area in this project because noise levels and the more business-oriented atmosphere of the area would not likely allow effective interviewing.

We identified our interviewees through two non-probability sampling techniques: snowball and convenience sampling. In snowball sampling, subjects with particular attributes are identified, interviewed or surveyed, and then asked to refer others who possess similar attributes (Berg 2001). Those referrals are then contacted, and the process is repeated if necessary. In this study, several basket makers involved in public basketry demonstrations were initially targeted because of their presumably high levels of knowledge, community involvement, and interest in preserving the craft. Snowball sampling in

this study, however, was largely unsuccessful because many basket makers were either hesitant to refer others or simply did not know others that they thought would be interested in participating in the study.

Convenience sampling, a technique that ''relies on available subjects—those who are close at hand or easily accessible'' (Berg 2001), was then employed. Basket makers who happened to be vending during researcher trips into the field were asked to participate in the study and then asked for the names of referrals. We made considerable efforts to make field excursions at varying times and on different days of the week to make contact with a variety of basket makers. A total of approximately 60 basket makers were approached through both sampling techniques in the course of the study, and 23 were interviewed.

A semi-standardized structure was applied to all interviews. Respondents were asked questions concerning sweetgrass use and management from an interview schedule but were encouraged to elaborate on topics by asking probing questions. The wording of scheduled interview questions as well as probes varied among interviews, because the educational level of basket makers was varied considerably. These interviews typically lasted for 30 to 45 min, and all except one were audiotape-recorded. After interviews, we administered to all basket makers short questionnaires assessing demographic information.

Interview tapes were then transcribed verbatim into written text and analyzed using qualitative content analysis. Content analysis is a broadly applicable tool that can be generally defined as a technique in which the content of a message is objectively and methodically examined to isolate data of value. Berg (2001) has provided an excellent overview of this technique. In the content analysis of our study data, we first scrutinized interview transcripts and identified a number of emergent or recurrent themes expressed by the basket makers. Individual transcripts were then coded with respect to these emergent themes, and the prevalence of the themes was reported through frequency counts of interviewed basket makers expressing them. Interviewee illustrations of these themes are included as quotations in the Results section. We reported demographic data assessed in questionnaires through univariate statistics, again as frequency counts.

RESULTS

DEMOGRAPHICS

All survey respondents in this study were female. Although two male basket makers were approached during researcher trips into the field, one declined to participate and one could not be reached for interviewing after initial contact. The average year of birth among survey respondents was 1944. The most elderly respondent was born in 1926 and the youngest in 1963. Ten (43%) survey respondents identified their primary occupation as basketry, and several different titles were used to describe this occupation: basket maker, basket weaver, sweetgrass artist, and educational artist. Six (26%) respondents identified themselves as retirees, five (22%) as employees, and two (9%) as having no occupation or unemployed.

Fourteen (61%) survey respondents reported residing in zip code 29466, the less developed area of Mount Pleasant, northeast of ''urban'' Mount Pleasant. Seven (30%) reported living in ''urban'' Mount Pleasant with zip code 29464, and two respondents reported living in areas outside of Mount Pleasant. Twenty-two (96%) of the basket makers surveyed in this study reported having at least one child.

STAKEHOLDER VIEWS AND PRACTICES

The primary goal of this study was to identify common views and practices of basket makers that might aid in development of an effective, long-term sweetgrass management plan. We identified seven such views and practices (Table 1) through content analysis of basket maker interview transcripts and represent them here as themes: (1) basket maker has purchased sweetgrass from collectors; (2) residential development is a reason for the unavailability of sweetgrass; (3) the dedication of local land to sweetgrass cultivation would help make sweetgrass more available; (4) outside assistance would help make sweetgrass more available; (5) educational outreach would help make sweetgrass more available; (6) basket maker expresses no preference regarding sources of assistance; (7) basket maker is willing to donate time to restoration efforts.

(1) Basket maker has purchased sweetgrass from collectors. Although it is common knowl-

TABLE 1. SUMMARY OF THEMES IDENTIFIED THROUGH INTERVIEW CONTENT ANALYSIS.

Theme	No. respondents reporting	% respondents reporting
(1) Basket maker has purchased sweetgrass from collectors	18/23	78%
(2) Residential development is a reason for the unavailability of sweetgrass	23/23	100%
(3) The dedication of local land to sweetgrass cultivation would help make sweetgrass more available	20/23	87%
(4) Outside assistance would help make sweetgrass more available	19/23	83%
(5) Educational outreach would help make sweetgrass more available	17/23	74%
(6) Basket maker expresses no preference regarding sources of assistance	14/23	61%
(7) Basket maker is willing to donate time to restoration efforts	17/23	74%

edge to those familiar with the basket-making community that some basket makers now purchase rather than collect raw materials, little documentation exists to suggest the extent to which this practice has become widespread. In this study, 18 (78%) survey respondents indicated that they had at some time purchased sweetgrass from others who collect it. Some basket makers admitted never having collected the grass themselves. Most, however, indicated that although they had collected the grass themselves in the past, they now purchase some or all of the sweetgrass that they use. Purchasing sweetgrass from collectors was described as standard practice by many survey respondents:

''Well usually like I said this man outside now, he goes out and get them (sweetgrass), and I get most of my grass and stuff from him. And like I said I know people who go as far as Florida just to find it and bring it back to us here.''

''I used to do it (collect the grass), but right now I'm buying because where they have to go to collect the grass, I haven't been able to go to those areas.''

The collectors were consistently identified as men—sometimes members of the basket-making community who made trips from Charleston to collect the grass, and sometimes residents of other areas in Florida, Georgia, and South Carolina who harvested the grass and made trips to Charleston to sell it to basket makers. Some basket makers expressed anger and frustration at the high prices that the collectors charge for the material, because these prices must ultimately be reflected in the cost of the baskets, which to many tourists seems surprisingly high. Another indicated that the high price of the grass negatively affected the development of basket-making skills among the younger members of the community:

''And in fact it got to one point where my daughter, my son, and two of my nieces were wanting to learn, but unfortunately the sweetgrass was so scarce I just could not afford to allow them to play with it, you know, to learn more. I mean they know how to weave a little bit, my children, but you know I just couldn't afford it.''

(2) Residential development is a reason for the unavailability of sweetgrass. Every basket maker surveyed in this project identified residential development in the Charleston area as a reason for the difficulty in obtaining sweetgrass. Many basket makers described development as a threat to basketry in two respects. First, development in coastal and wetland areas is responsible for much destruction of sweetgrass habitat. Second, plants that are not destroyed by nearby development often become the property of landowners and therefore off-limits to the basket makers who depend on them. Many basket makers indicated that although abundant supplies of sweetgrass still exist in the Charleston area and on nearby sea islands like Kiawah Island, the grass is not accessible to basket makers because of private property restrictions and the ''gated'' nature of some communities where the grass is located. Although survey respondents reported various points at which development began to have a noticeable impact on sweetgrass accessibility, everyone interviewed in this study agreed that development has had an impact on the resource:

''You know they're getting near the water and the swampy areas. They're building up just so they can put new houses. They're bulldozing all of our plants down you know, and private property now, the people just won't let you in to get it. Even though some of these places still have sweetgrass, you cannot get in there to get them even if you know somebody. You just can't get in.''

''They're having a hard time because some of the places where the grass is growing is private property and we can't go on it. So there are some people who I think are in trouble, you know, trespassing, and like I said they have to go out a whole lot farther than they used to go, like Florida and Georgia. . .''

''It's very scarce because the gentlemen and the people that own the property, the water land, they build homes near that area. The grass situation becomes very scarce because people shutting off the property and don't want you to come on it.''

(3) The dedication of land to sweetgrass cultivation would help make sweetgrass more available. Twenty (87%) of the surveyed basket makers indicated that the dedication of land to sweetgrass cultivation would ease the problem of its inaccessibility. Some basket makers noted that acquisition or ownership of that land would not be necessary, only the use of the land and a certain degree of access to the land for the basket makers. Many respondents indicated that a large-scale project would be necessary to meet the needs of the basket-making community, and some believed that stipulations regarding the harvesting of the material would be necessary to ensure equitable distribution of the resource. Some basket makers expressed preference for cultivation sites in the Mount Pleasant area, because most basket makers live there and the art form has such strong historical roots in the area:

''I think what we need [is] . . . a land big enough, like a farm-sized land, and really actually plant the sweetgrass and make it enough to where you can really see that I know I can depend on this sweetgrass for years and years and years. I think, um, that would help out a lot because you will find a lot of basket makers will come out and actually use it.''

''Well, I think this side is where the basket is being made. This is the area where it was founded. So to me, they should have some property over here where we can plant it.''

''First thing is we need the land. Then you can go on from that.''

(4) Outside assistance would help make sweetgrass more available. Nineteen (83%) survey respondents indicated that assistance from sources outside of the basket-making community would be helpful in making sweetgrass more available. Basket makers recognized that successful management efforts would require many costly resources and considerable labor, and accepted that these might come from external groups or citizens:

''You know, [assistance from] people with the resources, people with the property, people who can help us get into where we can't go. That'll help us a lot.''

Many respondents noted past instances in which outside groups have attempted to restore the grass or help the basket makers, and expressed eagerness and optimism at the idea of further assistance from such groups. Basket makers generally contended that assistance from sources external to the basket-making community would be both welcomed and helpful:

''They would love that (outside assistance). I know they would love it . . . No one would really turn down some help.''

''Oh, we would definitely accept any help that we get.''

''The more the merrier.''

(5) Educational outreach would help make sweetgrass more available. Despite basket makers' expertise regarding the harvesting and use of sweetgrass, many felt that knowledge of sweetgrass ecology and physiology was inadequate within the basket-making community. Seventeen (74%) survey respondents indicated that educational outreach with respect to sweetgrass science and cultivation would help make the resource more available. Several basket makers said that a meeting or conference would likely be the most effective venue for such outreach. Some basket makers indicated that, although the transmission of this knowledge would be generally helpful, the typically small yards of basket makers would not allow self-sustaining home cultivation. Many respondents felt, however, that the area in which most of the basket-making community resides would be suitable habitat for the plant and that those with adequately sized yards would likely be successful in home cultivation efforts:

''Yeah, that [educational outreach] would help too, you know, because I'm pretty sure they could find spots in their back yard to grow it.''

''Probably teaching how to do [cultivate] it would be a helpful thing.''

''Yeah, that [educational outreach] would be [helpful]. Yeah, and knowing how to test the soil out to know if this is the right soil for the grass to grow in the area.''

(6) Basket maker expresses no preference regarding sources of assistance. Preferences and levels of trust will undoubtedly affect the outcome of any sweetgrass management efforts that incorporate assistance from groups outside of the basket-making community. If the basket makers themselves are not comfortable with groups assisting in management, then those efforts will probably not be as successful as they could be. In this study, 14 (61%) survey respondents expressed no preference whatsoever with regard to sources of sweetgrass restoration assistance. Although several basket makers identified specific groups that they would like to involve in future management efforts, including the City of Charleston, Boone Hall Plantation in Mount Pleasant, and local historic groups, only one basket maker expressed distrust for a specific group, the Town of Mount Pleasant. Many basket makers declined to discuss trust and preference issues, because they felt that such statements should arise through community discussion and be representative of the entire basket-making community. In general, however, basket makers expressed an urgent need for measures to increase sweetgrass accessibility and openness to assistance from any willing source:

''I think we'd trust anybody. I think people are trying to help but I don't know bottom line what we need.''

''They [basket makers] know they need the help, so they'll trust anybody. It ain't no thing in the trust. We'll work together.''

''I don't think [prefer] no particular group because what we have to do is get some grass.''

(7) Basket maker is willing to donate time to restoration efforts. Seventeen (74%) of the basket makers surveyed in this study indicated that time would be their most likely contribution to future management efforts. Although many respondents reported being in poor health or physically unable to perform more strenuous aspects of restoration, they described their willingness and ability to act as liaisons between the sweetgrass community and others involved in management efforts. Several basket makers indicated their willingness to make monetary contributions to management efforts, but time was the most likely avenue for stakeholder involvement for most survey respondents:

''I don't think y'all will have no problem with volunteers coming out there to help you because it's gonna benefit us . . . more than anybody else.''

''Time and labor I can do. Maybe some money depending on how I sell my baskets. Anything to improve the situation, you know, because I'm only going to be sewing for a few more years, but I'm thinking about the ones that are coming behind me.''

''Money I don't have, but time and labor I will participate in. And like I said I don't have the money, so if somebody else has the resources I will gladly give my time and labor.''

DISCUSSION

In their search for the prized raw material, members of the sweetgrass community face many challenges. First, rapid growth and development in coastal South Carolina destroy and limit access to existing populations of the plant. Sweetgrass usually goes unnoticed when beachfront and marsh view property is disturbed for construction and other purposes, and the plants that do survive often become private property and therefore off-limits to the basket makers. Moreover, ecological variables such as fire suppression and possibly changes in hydroperiods have reduced the extent of natural sweetgrass habitat (Burke et al. 2003). The suppression of fires in sweetgrass habitat allows hardier shrubs and tree species to encroach upon and easily out compete the low-growing plant. Sweetgrass basket makers are also challenged in finding places to sell their wares. Some basket stands along Highway 17 have been displaced through development along the rapidly growing corridor, leaving basket makers with few other locations to market their goods. Finally, basket makers are challenged by influences inherent to the plant itself. Sweetgrass must grow for 2 to 3 years before the ''threads'' are of reasonable length and strength to use in the baskets; thus successfully planted seedlings of the plant must be tended for some time before providing a ''payoff.'' The plant also develops a bright pink flower around October, after which time it translocates its carbohydrates and the blades become brown and more brittle. Basket makers generally do not

pull the ''threads'' after this flower has developed and must wait for April or May to begin collecting new, green blades of sweetgrass. This is a relatively short time frame for basket makers to obtain enough sweetgrass to sustain themselves through the late fall and winter.

Several efforts to restore sweetgrass have been made in the recent past. In 1988, a conference was held in Charleston to bring together coastal resource managers, politicians, scientists, and basket makers in addressing the dwindling availability of the resource (see McKissick Museum 1988). From this conference came the creation of the first sweetgrass basketry organization, the Mount Pleasant Basketmakers' Association, commitments from various stakeholder groups, and in 1993, the first of a series of sweetgrass restoration efforts in the Charleston area. Plots of sweetgrass were planted at several upland, protected sites over the course of the mid-1990s with the hopes that these sites would sustain basket makers' sweetgrass needs for years to come. Although the plants generally did well in the upland habitats, several other variables detracted from the overall success of the projects. Issues including basket maker access to the privately owned sites (see Frazier 1999; McDowell 2000) and maintenance and management (see McDowell 2000) of the easily overgrown and out competed plants took a toll. Today, sweetgrass at some of these sites has become overgrown or disappeared. At sites where populations still exist, the grass is not abundant and is accessible only to a few basket makers.

The need for increased access to sweetgrass for Lowcountry South Carolina basket makers is clear. The majority of basket makers surveyed in this study now buy at least some of their raw materials from collectors, and if collectors are forced to travel more often and farther away from the Charleston area to obtain the material, it will likely become more expensive. Population growth in southeastern coastal areas has been particularly rapid and is expected to continue (Beekman et al. 1996), making such a scenario more probable. Many basket makers describe the art as one that is generally practiced in a predictable manner; children learn and practice basketry early, quit making baskets around adolescence, and then return to the art or ''pick up'' the baskets again in their later years. An obvious concern with this pattern is that children of the basket-making community today may see the troubles that their elders are having and abandon the art. The future of sweetgrass basketry may very well hinge on sustainable management or restoration plans that are conceived and developed in the near future.

The key findings of this research are that surveyed sweetgrass stakeholders support a number of different management avenues and that they are willing to contribute to management efforts. Surveyed basket makers most often identified the large-scale cultivation of sweetgrass as a potential way to alleviate sweetgrass inaccessibility. Survey respondents also indicated that assistance from groups external to the basket-making community would be helpful, and to a lesser degree that educational outreach with regard to sweetgrass ecology would help increase available amounts of the resource. The answer to the sweetgrass issue probably lies in several coordinated efforts rather than a single measure. Past restoration efforts have demonstrated that several issues arise in such group efforts as sweetgrass ''farms.'' This type of project probably would not be a panacea but might be an excellent focal point for a larger program aimed at educating sweetgrass stakeholders in the creation of their own sustainable supplies of the resource. One avenue that is scarcely addressed in this study is the possibility of opening communication lines between basket makers and the residents of nearby islands where the grass grows abundantly but is off-limits. Although land owners may fear that the grass is being damaged through harvesting and that they will receive nothing in return for the material, many basket makers insist that ''pulling'' the grass helps it to grow more vigorously and that they would gladly exchange a coiled basket for the opportunity to harvest.

In addressing our research question regarding the stakeholders' views of and roles in past and current sweetgrass management, we provide the foundation for a sweetgrass management plan that may secure the well-being of a centuries-old African art, coiled basketry. Although surveyed stakeholders and their descendants have historically done and currently do little to manage sweetgrass supplies themselves, our results point toward many possibilities for educating those stakeholders and incorporating them into future management efforts. Communities grappling with highly localized environmental issues have at their fingertips a number of public par-

ticipation options but no evaluative criteria by which to assess their appropriateness. In this study, we propose and outline a method to elicit stakeholder input effectively in a democratic, non adversarial manner to address a local and highly relevant environmental issue.

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