CONTEMPORARY ISSUES

RESEARCH LINKS AND SHARED RESOURCES:
THE SEA GRANT EXTENSION/RESEARCH EXPERIENCE

Norman K. Bender, Program Leader
University of Connecticut Sea Grant Program

My presentation will look at the relationship of Marine Extension and research programs as they have developed in the National Sea Grant college Program.

* First I will look at the similarities between the objectives of both Land Grant and Sea Grant in this area.

* Then I will consider some of the factors which help in building strong MAS/research ties.

* Third, I will discuss an approach to this subject that has worked well in Connecticut.

* Finally, you will have the opportunity to discuss:
  - Your concerns regarding MAS/research interaction and
  - Examples of successful approaches in your state program (Cooperative Extension and Sea Grant Marine Advisory Programs).

Land Grant and Sea Grant Models

"Extension in the '80s" discusses Cooperative Extension's relationship to research: "The basic mission of Cooperative Extension is to disseminate, and encourage the application of research-generated knowledge to individuals, families, and communities."1

Priority program areas to be developed using this research base are:

"The Agricultural System
Natural and Environmental Resources
Community and Small Business Development
Home Economics/Family Living
4-H/Youth Education and Development
International Concerns"2

The Land Grant system utilizes the Cooperative Extension Service and agricultural experiment station in each state to develop the interaction of Extension/research. It

2. Ibid.
is common to have departmental faculty with split appointments involving various combinations of research findings in Extension education programs.

An additional strength of the Land Grant system is having field faculty (County Extension Agents and Regional Specialists) employed in the same department (Cooperative Extension) and college (agriculture and natural resources) as agricultural researchers and campus based Extension specialists.

The basic relationship of Extension and research within the Land Grant system as stated in "Extension in the '80s" is:

"Extension education programs are in large part research-driven. Research should remain as the base for the system's major educational and informational efforts."\(^3\)

The National Sea Grant College Program and it's state programs also emphasize the need for the development of research and Advisory Service (Extension) projects that are closely intertwined. Sea Grant's basic goals are reflected in the following statements from "The National Sea Grant Advisory Service: Serving the Nation's Marine Community.\(^4\):

1. The continued intellectual and professional development of our population is critical to the improved well-being of society in general, and the marine-related sector in particular.

2. The nation's academic institutions have knowledge and resources that can help solve marine-related problems common to citizens, businesses, communities, organizations and government agencies around the country.\(^4\)

Sea Grant's organizational structure varies from state to state as regards MAS campus and field faculty and their ties to Sea Grant researchers.

Researchers (on Sea Grant funds) often are scattered throughout a state Sea Grant system in different universities both public and private. This differs from the more unified approach found in Land Grant where most Extension and research staff are located in one or two colleges (agriculture, family studies, etc.) within the same university.

Thus, Sea Grant MAS staff may be administratively and physically separated from their state's Sea Grant researchers. MAS staff may be attempting to develop working ties with researchers who are unfamiliar with the goal of achieving a continuing interaction of research and MAS personnel.

Factors That Can Build Strong Sea Grant Extension/Research Ties

While Sea Grant programs have taken various approaches in building Extension/research ties, there are several factors that I see as crucial to this process:

---

3. Ibid., p. 19
4. The National Sea Grant Advisory Service: Serving the Nation's Marine Community, Madison: University of Wisconsin Sea Grant Program, National Committee on Sea Grant Advisory Services, March, 1983.
1. Identification of marine problems/issues by Extension staff that can be appropriately addressed by researchers.

2. Effective communications between Extension and research workers regarding both appropriate research issues and research findings.

3. Ability of individual Extension and research staff to work together (this is the glue that holds it all together).

4. Administrative support through adequate funding and other encouragement of Extension/research interaction.

A. Gene Nelson (Oregon State University) described successful Extension research interaction as a form of synergy. That is, results provided by the interaction are greater than could be achieved separately by Extension or research workers. Nelson makes a case for successful Extension/research interaction producing greater accomplishments with less energy.\(^5\)

In other words, Sea Grant programs that achieve a high level of Extension/research interaction also are making more efficient use of program resources. This is especially important during a period of cutbacks in marine resources research and development programs such as we face today.

Robert Kramer (University of Florida) concludes "that the time has come to think and act as equal partners with researchers in the research, development and Extension process."\(^6\) He points out several factors that can contribute to this goal. Among them are:

- "Extension personnel should be as well prepared academically as research personnel...."

- Extension personnel should do research regularly and be recognized by peers, department chairs and administrators. Some research costs for research by Extension personnel should be paid from experiment station funds.

- Extension personnel should do some research on Extension programs on Extension time and costs paid by the Extension's budget.

- Extension personnel should be permitted and encouraged to have joint appointments... (this may more exactly apply to campus faculty than field faculty; however, it should be considered for some field positions. N.B.)

- Extension personnel should be equally eligible for sabbatical leaves as research personnel, and should be encouraged to take such leaves. The time should be spent in research enhancing the conceptual and analytical tools of the faculty member. ...

---


- Extension personnel need to be participating members of their department, college, university and society.

- Extension personnel should actively consult with researchers and build consultative terms with strong problem orientations.

- Extension and research personnel should take 'listening trips' together.7

Extension/research ties are strengthened when both researchers and Extension workers perceive this interaction as being a high priority within their program or department. It helps when they also see it as a positive factor in their career development.

An Approach That Has Worked in Connecticut

I would like to share with you some experiences in Connecticut that illustrate how Extension and research workers have produced important accomplishments.

Before July, 1982, Connecticut Marine Advisory Service was an individually funded project. We worked without benefit of a comprehensive Sea Grant Program. It has taken until the past year for Sea Grant research projects to produce findings available to our MAS staff.

Thus, we have had about ten years experience in organizing Extension/research interaction without a formal Sea Grant research component. Out of this situation Connecticut MAS specialists developed ties with appropriate researchers resulting in strong ties between Marine Extension and research workers.

One Extension/research project involved a team consisting of a MAS regional specialist, an assistant professor of resource economics and a graduate student. Funding came from the Agricultural Experiment Station, Sea Grant and Cooperative Extension. Results were reported in a master's thesis, an Experiment Station bulletin and a MAS Extension bulletin.

The project studied the costs and returns of the Connecticut charter and party boat fleet. It was developed out of requests for such information from boat captains to the MAS specialist. The project team was assembled after working out time and funding requirements with the MAS Program Leader, CES Associate Director and Experiment Station Associate Director.

Information from the project was utilized in a variety of ways. These include:

- Current fishing captains compared their financial situation with the data evaluated in the study report.

- Potential captains improved their understanding of costs and returns common to the fleet.

---

- Commercial lenders used the data when evaluating loan applications.
- State officials used the data when making decisions concerning the impact of expanded tax exemptions upon state revenues.
- Marine Extension and research workers in other states have used the bulletins when designing similar projects.

This is one example of an Extension/research team approach. It illustrates the potential benefits available through cooperative efforts.

**Summary**

Extension/research interaction is identified by both Land Grant and Sea Grant as an important approach in solving issues within the two national systems. It can succeed only if certain conditions are present. These include:

- identification of appropriate problems and issues.
- effective two-way communications between Extension and research staff,
- ability of individual Extension and research staff to work together,
- administrative support.

The potential opportunities are out there. It is important that we share the various approaches to realizing them.
MANAGING THE COUNTY EXTENSION MARINATION PROCESS

Bruce DeYoung, Program Coordinator
New York Sea Grant Extension Program

Abstract

Developing county extension leadership for marine programs is both challenging and rewarding. When successfully accomplished, county extension staff acquire the capacity to conduct marine programs with local support. This paper describes management tools and marketing strategies for helping county extension to assume leadership for marine programming.

Introduction

Culinary novices and experts alike understand the secret of food marinades: Enhance the flavor but retain the taste! So also with introducing prospective extension program innovations — enhance county extension capacity but retain its character. Successful marinades are characterized by county extension staff feeling excited and confident about assuming marine program leadership. But, how can this be influenced and achieved?

In New York State, the majority of Cooperative Extension revenues are derived from county government. Reflecting this, innovations like county extension leadership for marine programming must prove to be valuable before becoming an on-going practice. Sea Grant can encourage this to happen in a variety of ways. It can help county extension to identify and assess key opportunities for marine programming. Sea Grant can also help to develop local fiscal and client support for county extension assuming marine responsibilities.

A Working Model

In New York's case, we're marinating county extension by using classic Extension theory and methods! Our marinade recipe is portrayed in Figure #1 as a model by Rogers (1983) of the innovation decision process. Since marine program leadership by county extension is an innovation in New York State, this model applies nicely to our situation. In it the decision maker a potential program innovation; forms an attitude; assesses adoption or rejection; implements the choice; and confirms the decision. We utilize this model by providing specific educational experiences which encourage county extension's passage through the process.

To gain knowledge about marine program opportunities, "internal and external" market research is conducted jointly by college and county extension staff. The external survey examines marine extension program needs of existing or potential constituents against local funding patterns and priorities. The characteristics of a county extension unit are also examined for potential linkages to marine programs. The unit's goals and staff interests are assessed to learn where marine program leadership would be advantageous. Often the Cooperative Extension Representative (District Director) can be helpful in this activity. If these evaluations identify promise for county marine extension program leadership, then the issue moves to the second stage — Persuasion.
When county extension is in the "Persuasion Stage," they focus much attention upon the perceived characteristics of the marine program innovation. To form an attitude about the innovation, information is sought on several characteristics: advantages; compatibility; complexity; trialability and observability. It is valuable at this point to develop a discussion document on these for use by county extension. Professional staff and lay leaders draw on their visions and may change the draft of this document several times as it evolves. Needless to say, it is important to involve key individuals and committees in these discussions.

Management Tools

Management tools can then move this talk into action. In the Decision Stage, specific educational activities are used to stimulate choices being made by county extension. For most, a means of coping with the inherent uncertainty of an innovation's consequence is small-scale testing. We in New York consciously facilitate the trial of new marine programming by county extension. This is done by reducing the financial and psychological cost of specific trials proposed by county extension.

Some mechanisms for this include:

* Providing training and educational program support for county staff assuming marine project leadership.
* Helping county extension to tap private support for marine projects.
* Providing small grants ($2000) for county extension to develop innovative marine projects.
* Spinning off Sea Grant's proven marine programs to county extension leaders.

* Providing professional recognition and promotion for county extension staff conducting marine programs.

* Encouraging tests of multi-county marine extension positions with matching college/county financing.

* Helping county extension to gain county government financial support for creating new marine units.

Our experience indicates that the Implementation and Confirmation stages of the model are periods of declining involvement by college extension administrators. Most marine projects successfully implemented by county extension as trials become institutionalized. This happens when county extension is recognized by the legislature and constituents for its successful marine programs. When this happens, marine client representation is added to advisory committees and marine program responsibilities are inserted into staff position descriptions. In short, county extension becomes marinated by the success of its marine educational programs!

**Conclusion**

Sea Grant and Extension leaders can play an important role in developing county extension leadership for marine programs. By viewing marine programming in the context of a county extension innovation decision, this process can be managed as a series of planned education events. In this way, a variety of educational experiences can be provided to decision-makers throughout their deliberations.

As in many Extension efforts, the most powerful educational tool is that of encouraging field trials of the innovation by decision-makers (county extension). This educational strategy is not new to marination technology for in 400 B.C., Sophocles noted, "one must learn by doing the thing, for though you think you know it — you have no certainty, until you try."

**References**

DEVELOPING RELEVANT PROGRAM COMPONENTS FOR MARINE AND GREAT LAKES PROGRAM PLANNING AND REPORTING

Marion Clarke
Florida Sea Grant Extension Program

Historically program planning and reporting have been difficult since the establishment of the Sea Grant Extension Program (SGEP). This relates to the program planning categories used in developing the Cooperative Extension Service (CES) Plan of Work (POW) and reporting through the State Extension Management Information System (SEMIS/EMIS) reporting system of CES.

With the inception of the SGEP into the Extension Programs around the nation, they were initially forced to use the reporting and planning categories already established for existing extension programs. Marine fisheries activity was reported under livestock production, aquaculture activity under crop production, etc. A few limited reporting and planning components were relevant such as organizational maintenance, but for the most part program components of the SGEP were lost and not identifiable in the jungle of Extension Programs.

Is this loss of program identity a problem? If it is important to evaluate statewide programs and their impact, and if it is important to have similar programs reported under consistent program components then it is definitely a problem. When a marine extension agent is developing a plan of work or reporting his activity through a SEMIS or similar system that does not have a clear identity with the program activity, it tends to get reported differently by different agents. This results in an array of data in different categories that cannot be consolidated by major program activity. The resulting data is not useful for planning future programs or is not readily available to document accountability throughout the system.

Over the years individual programs have attempted to solve the problem by establishing program reporting and planning components that are more relevant to marine programs. In a survey conducted prior to the ECOP National Marine Extension Program Workshop it was identified that there is currently no consistency in the reporting or POW categories used by CES affiliated Sea Grant Extension Programs. Eleven of eighteen Marine Extension Programs responding indicated one or more special program components for planning and reporting. One marine program reported eleven separate categories. There was no consistency or standard categories used by any of the programs. However there were some similarities that could provide a base for more consistent program components for Marine and Great Lakes Extension Programs. Program planning and reporting categories currently being used by responding programs included:
Aquaculture | Sea Grant | Sea Grant
---|---|---
Commercial Fisheries | Marine Recreation & Commerce | Commerce
Commercial Fisheries | Marine Recreation
Com Fishing/Aquaculture/ | Marine Recreation/Tourism
Fish/Shellfish | Marine Industries
Coastal Processes and Management | Living Marine Resources
Coastal Zone Management | Marine Science
Coastal Management | Marine Resources
Great Lakes Coastal Devel. | Natural Resource Policy/
Coastal Processes & Devel. | Planning & Mgmt.

There are numerous voids in marine and Great Lakes programmatic planning and reporting components. That is, the scope of the Sea Grant Extension Program nationwide is made up of program areas that do not fit the categories reported in the survey or that exist in the traditional program components of CES.

A productive activity for the ECOP Task Force on Marine Extension Programs, when and if created by the Agriculture and Natural Resources Subcommittee of ECOP, would be to take the program planning and reporting categories suggested by the survey and refine them into a national set of program components. They need to be broad enough to cover the diversity of programs within the Marine and Great Lakes Extension Programs, yet specific enough to measure local, state, regional, and national scope and impact of programs. These program components then need to be integrated into the USDA/CES System from the Office in Washington, D.C. all the way down to the individual states. This would give consistency to planning and reporting and facilitate a much more effective and efficient PLO and reporting process for Marine and Great Lakes Extension Programs.

Recently in the process of completing an annual narrative report and Civil Rights/Equal Opportunity report, I encountered the age-old problem, there was a box to check for program area. All program areas of CES were there but no place to indicate a marine extension program. What happens to this data? I have been told that no one knows for sure but it most likely gets combined with the Natural Resource data and can never again be compiled to identify program impact or intensity in marine and Great Lakes Extension programs nationwide. In Florida the Program Planning and Evaluation Office puts an additional box with Marine on it for our narrative reporting and other required reporting and planning information. What does USDA/CES do with it? No one knows for sure.

Marine and Great Lakes Extension Programs are increasingly becoming an important element of CES programmatic activity. It is one of the best CES entrees into the urban clientele which USDA/CES has identified as a major priority. It is high time that we develop relevant guidelines and a system that will effectively integrate the Marine and Great Lakes Extension Programs into the USDA/CES System. This important extension activity should officially be made a part of the CES system at the national level. This task can be accomplished by the establishment of an ECOP Task Force to study the issues and make recommendations to ECOP. This recommendation was accepted by the Workshop participants and is included in the major recommendations of the Workshop.
"Minorities in Marine Programs: As Participants and Employees: The Situation and Alternatives"

Arva Jackson
National Oceanic Atmospheric Association

Within the topic assigned to me is an inference that the current level of minority participation is low in marine extension programs either as employees, constituents or both. Those closest to these programs have the opportunity to sense the disparity between what is and what might be. Fiscal year 1983 data for the "potential, planned, and actual clientele contacts by state and program - professional and paraprofessional combined" is available for both the 1862 and 1890 institutions and is attached. A break-out of how many of these contacts, if any, represented any integration of Sea Grant Advisory Programs into Cooperative Extension Service Programs was not available to this author, and may not exist. Let us assume that some of these contacts do represent a marine extension connection since about half the advisory service units are administered through the state Land Grant University Cooperative Extension Service. However it would be misleading to co-mingle statistical evidence from the 1862 and 1890 institutions as representative of minority participation even in the Cooperative Extension Service Programs since the establishment of the Second Morrill Act in 1890 provided a mechanism to endow those schools with a large black enrollment...a legacy that continues to the present. John Hope Franklin in his 1947 history of Negro Americans wrote of this period:

"Radical agrarian organizations had flourished all over the United States after the Civil War. The national grange, or patrons of husbandry, was attracting thousands of farmers by 1870, but it was kept within bounds in the South during reconstruction because of the dangers of Negro-radical rule. Prostrated by depression, however, the southern farmers' alliance had branches in every southern state. Although they did not admit Negro members, they believed that Negroes should at least be lined up in a parallel organization. In 1886, therefore, the colored farmers' national alliance and cooperative union came into existence. It grew rapidly. By 1891, it claimed more than a million members in twelve state organizations. There were local chapters wherever Negro farmers were sufficiently numerous. After a national organization was perfected in 1888, there was for a time close cooperation between the white and Negro groups.....Professor C. Vann Woodward says that under the tutelage of radical agrarian leaders the white masses of the south were learning to regard the Negro as a political ally bound to them by economic ties and a common destiny. Never before or since have the two races in the south come so close together as they did during the populist struggles."^8

Clearly today's extension agents must have had resourceful, effective role models. If Woodward was right, what can be done in our time to create windows of opportunity to realize the moral imperative of the attainment of equal educational and employment opportunity for minorities? It is important to influence the civil rights posture of the extension community since there is an 1862 Land Grant University in the 50 states, Puerto Rico, the Virgin Islands, Guam, American Samoa, Micronesia, and the District

of Columbia and in the Tuskegee Institute and sixteen 1890 Land-Grant Universities (in sixteen states). They enroll 16 percent of U.S. undergraduates and grant 42 percent of the doctoral degrees. Almost 40 percent of American nobel prize winners went to Land Grant Schools. It is within this context that it is useful to assess the role of minorities in marine programs because the linkage of the Land Grant and the Sea Grant Programs can be expected to grow stronger. But first it is pertinent to recognize the diversity among Sea Grant Advisory Programs in meeting their objectives. Each state experience reflects its special environment. For example, those states with a history of agrarian development are likely to attract those with special skills in agriculture thereby reinforcing the critical mass of expertise. Additionally, and for this presentation even more germane, is the reality that the ratio of minority - to - non-minority population varies from state to state; and in each state the composition of that minority profile is different. Florida with a substantial percentage of hispanics may need a strategy different from that used in Delaware. When Indochinese refugees settled in the Monterey Bay area cultural differences "led to misunderstandings and conflicts with other commercial fishermen in the area."9 We are a nation comprised of immigrants. "As a pilgrim father that missed the first boat," cried "the immortal Mr. Dooley" in 1902, "I must raise me clarion voice again the invasion of this fair land be it th' paupers and arnynchist in Europe. Ye bet I must - because I'm here first!" The "Arnynchists" who were being so obliquely defended by Mr. Dooley's creator - satirist Finley Peter Dunne - were latecomers to the U.S.--Italians, Slavs, Greeks and Turks, who were raising the hackles of predecessors from Germany, Scandinavia and the British Isles. Although few among nearly 50 million total immigrants from all countries escaped some form of prejudice, few, too, have failed to enhance the flavor of life in the U.S.10

We must accept that the pursuit of a color-blind society is unlikely to be achieved without addressing the differences of time and place and culture, and economy...and certainly, politics. Who makes the decisions about who gets a job? Who decides who may get what education? How is it determined who will be a successful marine extension specialist? Many of you who are attending this ECOP National Marine Extension Workshop are such decision-makers. You have the power, authority or influence to address the problem inferred in my topic title. Once put into words problems become dynamic attracting charges and counter-charges/claims and counter-claims. Within the achievement of the objectives of this workshop is the parallel possibility of creating a more racially diverse workforce and providing service to a more racially diverse community. Alternatives can be recommended, but while being carried forward at least two preliminary steps should be undertaken. The first step should be a survey of every existing Marine Extension Program to determine the number of agents, specialists, administrators and FTE's (full-time equivalents) by race in each of the Sea Grant College Programs. To rely solely on the receipt of assurances that compliance have been achieved provides the illusion of responsible stewardship. Little sustained collection and use of racial or ethnic data to determine whether program benefits actually are reaching minority group beneficiaries on an equitable basis perpetuates perceptual yardsticks of progress or recidivism dependent upon the eye, experience and expectation of the reviewer. Such data provides no more than a common base of information from which direction may be determined. Such action may be currently out of favor. However, as in every other area we tend to be more responsive to those activities that are inspected, rather than those that are expected.

The second preliminary step is a conscious recording of techniques that work to build bridges between different racial and ethnic groups. The Monterey Bay experience is a case in point. Such case studies would have a salutary effect when shared with others who may face similar challenges.

Concurrently the following techniques may offer do-able alternatives without major expenditures of new monies.

1. Internal exchange program

Although the expertise required by specialists may appear to be a deterrent, in the possibilities are attractive. Aquacultural research and extension is a fruitful area, as is pollution. The use of remote sensing data can be applied to land, sea and air. Any specialist or agent with a knowledge of the use of environmental satellite data in one program could contribute to a parallel extension program.

2. Shared projects

Undoubtedly this is already operational. The process recommended is to design projects involving a marine extension component - an 1882 component and an 1890 component. Working toward a shared pay-off provides easier access to projects that may be conducted later under the aegis of one component.

3. Areas of excellence (4-H Programs)

The identification of 4-H programs with significantly large numbers of participating minorities provides a seed-bed for the development of future marine specialists. Exposure to the marine environment at an early age can be a significant event leading to a career choice. The need to prepare for such a career by selection of course material and even the college to attend can follow such an intensified experience.

4. Newsletter clearinghouse

To the extent that Sea Grant Programs have house organs a clearinghouse for their exchange and dissemination to other members of the extension family could increase the communication flow among the extension network. Casual learning about operational programs is often the needed spark to help a potential candidate look for more specific job-related information.

5. Advertise in minority publications/public radio

Within the past five years magazines/newspapers directed at a specified racial/ethnic community have flowered. Notice in such a specialized paper is often more effective than those placed in major news organs. In some communities there are radio programs beamed directly at a minority audience. Because they are sometimes public, a public service announcement allows them to fulfill their responsibility to the public.
6. Use existing associations/organizations

This is not always a workable effort, but in instances where organized, secure associations/organizations have a good relationship with the marine extension service to use their network in an effort to attract minorities to the service may establish one more link with that group and so add to the consolidation of mutually beneficial joint efforts.

The Extension Service has a unique resource in the national network that has developed from "sea to shining sea". From those with such resources much should be and is expected to help mend the fraying fabric of our society as they carry out their responsibility for extending information to people. A diverse workforce serving a diverse clientele is an honorable message for what has become an honorable member of the national silhouette - the Marine Extension Service.
I appreciate very much the opportunity to share with you the current state of the art of involvement of 1890 institutions in Marine Extension Programs.

Based on a most recent survey of Research and Extension administrators at 16 1890 institutions and Tuskegee Institute, there are only two of these institutions presently engaged in either Research or Extension programs, namely, Virginia State University (4-H Marine Program) and Florida A&M University (CSRS Research Project). While many liberal arts minority institutions including the 1890 Land-Grant colleges/universities are providing training for minority youth in several other sciences, there are virtually no programs at these institutions designed for career options in marine science.

The lack of marine education programs at these institutions also provides the overall rationale for less than one percent of minority persons currently employed in the marine sciences either as Research scientists or Extension professionals.

The current situation can also be resolved if strong and viable marine extension education programs are provided at 1890 institutions alone or through joint programming with predominantly white institutions receiving support from the State Sea Grant College Programs. This is especially possible in those states that are either on or in close proximity to the Atlantic, Pacific and Gulf Coastal areas.

Close contact from directors of State Sea Grant Programs with university contact persons at 1890 institutions, including Research and Extension administrators, could be viewed as a step in the right direction to insure that an increased number of minorities are involved in marine science programs. However, on the other side of the coin, interest in these special programs should and must be pursued by 1890 administrators of both Research and Extension Programs.

Florida A&M University is mentioned at this point because of its location near the Gulf Coast, and can be used as a focus for marine extension programming at other 1890 institutions. Florida A&M University is one of the 1890 institutions presently not involved in marine education or extension programs. However, the possibilities do exist because of the institution's proximity to the Gulf Coast and employment of one trained minority faculty member in marine biology.

Tallahassee, the capital of Florida, and only thirty (30) miles away from the Gulf Coast, is a dynamic location for marine education programs. Other than Florida A&M and Florida State University, there is one junior college to draw minorities from, 19 elementary, 6 middle, and 4 high schools in the city. Thus, there is a wealth of youth, especially minority youth available for exposure to marine and extension education programs. However, a lack of marine education programs at these schools/universities precludes opportunities for attracting minority youth in marine education programs for college level training and ultimate career choices.

Marine Extension programs would benefit small farm operators near the Gulf Coast who could derive supplemental income from a diversified farming operation.
There farmers could be potential participants in the marine advisory programs of the state.

From my knowledge base, one of the primary purposes of the State Sea Grant College objectives is to transfer knowledge from research data. This knowledge base is for both educating the general public and insuring its proper application.

Researchers at Florida A&M University have conducted considerable research on the ecology and value of coastal wetlands such as salt marshes and estuaries. This program was initiated with Cooperative State Research Service (CSRS) funds in 1973. Initially, studies were concentrated on the soil genesis and morphology of wetlands. Later, the research was expanded to include studies on soil-plant relationships, dynamics of nutrients and organic carbon cycles and their effects on marsh environment and water quality.

Another long range research project under the Wetlands Ecology program dealt with the ecology of animal communities, especially of the commercial species, and plant productivity in relation to the total ecology of salt marshes.

Some of the significant findings of this research with particular implications for marine and extension education programs are:

1. The primary productivity of marsh plants are comparable to that of agricultural crops.

2. Decomposition of marsh plants provides a rich supply of organic detritus on which the entire food-web depends.

3. A rich invertebrate community exists in the marsh sediments which provides food for commercial crabs, shrimps and fish.

4. Fish populations of the marshes, tidal creeks and estuaries consist of both permanent residents and migrating species.

5. The migratory species utilize the habitat as nurseries during the early part of their life cycles, and many migratory species are commercial species such as mullet, speckled trout, black bass, etc.

6. The tidal creeks may be manipulated for mariculture of crabs, or shrimps, and commercial fish.

These significant findings have been reported in published papers in scientific journals but can be much more useful when disseminated to the general public through some marine extension programs. Though this research project at Florida A&M University is one of the most comprehensive programs in the United States, the lack of a marine advisory unit at FAMU hampers the Extension staff from disseminating the knowledge in a usable form to consumers.

Florida A&M University along with other predominantly black 1890 institutions could benefit from financial resources derived from State Sea Grant College funds to conduct both research and marine extension programs.

A viable marine education and extension program at Florida A&M University and other 1890 institutions would encourage greater minority participation and have a
significant impact on helping industries, communities, and citizens use the knowledge base to help solve problems related to coastlines in close proximity to these institutions.

There is a great need for minority youth participation along with other 4-H members in marine education. They too need to know about the vast natural resources of the sea and other coastal areas. While most of our marine resources are renewable, however, many are facing serious problems because of abuse, poor management, pollution, and other factors. All citizens need to be aware of ways to protect our natural resource habitats. It is most important that youth gain the knowledge and cultivate proper attitudes necessary to enable them to make sound decisions concerning coastal resource management, as well as become concerned, involved adults.

Finally, I want to offer the following suggestions for increased participation of minorities in marine education programs:

1. Encourage minority 4-H youth to participate in marine science 4-H projects.

2. Encourage minority 4-H youth to participate in 4-H marine camps.

3. 1890 institutions can initiate special summer camps for out of school kids on their campus to inform them about marine education training and careers.

4. Identify minority institutions other than 1890 institutions near coastal areas and encourage them to include options in marine science in their science curriculum.

5. Conduct on-campus summer workshops for adults and community residents with an interest in fishing and other outdoor sports.

6. Provide scholarships/fellowships for use by minority youth and others to pursue careers in marine science.

7. The State Sea Grant College should fund research projects at 1890 institutions either independently by or through joint projects with other institutions near coastal areas.

8. Establish marine advisory committees on campuses of 1890 institutions so that there will be linkages with the Sea Grant College, Research and Extension programs.

9. Minority graduates in natural sciences and biology programs should be encouraged to seek career opportunities with the U.S. Department of Commerce and State Extension Programs.

10. Initiate directed individual research projects in marine sciences for high school juniors and seniors, and college youth. These may be for a semester or year long projects. Students could write reports or papers on these projects.
SYNOPSIS OF DISCUSSIONS

Thomas Sweeney, Leader
South Carolina Sea Grant Consortium
Charleston, SC

This section is a synopsis of the discussions held during the ECOP meeting in Clearwater, Florida. Each section is summarized below, but the reader should feel free to contact the discussion leader if more detail is desired.

The topics and discussion leaders were:

<table>
<thead>
<tr>
<th>TOPICS</th>
<th>SGMAS LEADERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERSONNEL and PROGRAMS</td>
<td>Bruce Wilkins (NY)</td>
</tr>
<tr>
<td>OVERHEAD</td>
<td>Tony Mazzacaro (MD)</td>
</tr>
<tr>
<td>COUNTY and LOCAL SUPPORT</td>
<td>Alex Wypyzinski (NJ)</td>
</tr>
<tr>
<td>DIFFERENT STRUCTURES OF CES/MAS PROGRAMS</td>
<td>Jim Murray (NC)</td>
</tr>
</tbody>
</table>

A universal opinion that seemed to follow through all of the discussions revolved around the individuality of programs. Every state is different, and no one program will work for everyone. In fact, the differences in programs may be beneficial. The general conclusion was that each state should handle its own problems, but access other states’ experience with similar structure and policies when outside assistance is needed. Flexibility is essential.

NOTE: "MAS" is used to represent all marine oriented Extension efforts.

TITLES:

I. PERSONNEL AND PROGRAMS

Primary interest was on program titles. Most felt that the terms agent and specialist were appropriate. Staff titles should be connected to program name.

There were three overall favorites for program title.

1. Sea Grant Extension Program (most commonly used)
2. Sea Grant Marine Extension Program
3. Marine Extension Program

All agreed that Extension should be part of program name, and that less variability among program names might help identify a national program.

II. OVERHEAD
1. Overhead should be renamed "indirect costs" for less negative connotation.

2. Because of the large diversity in indirect cost rates, base amounts to be
   charged, and charges returned to the program, the group recommended a
   state-by-state approach. No "national" policy was recommended.

3. NOTE: Tony reduced his MAS/CES overhead to "0", effective July 1, 1985.

III. LOCAL AND COUNTY SUPPORT

Diversity of programs' arrangements with counties and CES made overall
recommendations difficult. Most participants received little or no county support. A
notable example is New Jersey which has 1.3 F.T.E.'s, office space, supplies, and
secretarial support contributed by county.

1. A common problem among participants was the practice of precluding
   MAS Leaders and agents from approaching county administrators for
   funding. This usually fell to the CES Director.

2. A second common problem was the inability of MAS programs to get equal
   billing during an extension director's request for county support. MAS is
   usually not included with traditional CES areas of effort that also have
   needs for funding.

Two states have developed programs to allow direct county solicitation by MAS
staff.

1. Minnesota allows agents to contact counties on project by project basis.

2. New York puts the agent in the position of having to develop individual
   budgets for their program and work directly with county administrators on
   a long-range plan which is approved by all concerned. MAS agents also
   work to educate CES departments on the value of including MAS programs
   in their planning. This program was well received by discussion group.

3. Some states such as Ohio, access CES funding and allocate positions using
   formulae based on population, acreage under cultivation, and crop diversity.
   A suggestion was made to include commercial fishing, marinas, boat owners,
   etc. in this formula. How to go about doing this was not discussed.

No easy method for increasing county support were brought forward, although
two suggestions were made.

1. Increase visibility of MAS programs at county level and educate county
   administrators on the benefits of having MAS programs in their counties.
   Include county administrators on mailing list for MAS publications and
   newsletters.

2. Increase MAS visibility with their county staff and attempt to build marine
   agents into system so they are an integral part.
IV. "DIFFERENT STROKES FOR DIFFERENT FOLKS"

Eight states participated in the discussion with a range of MAS integration from totally to informal ties. The following is a list of issues discussed.

1. Travel posed a problem in some states where traditional "agents" seldom crossed county or state lines, but MAS staff were focusing on more regional or national scales. A suggested solution was strong communication and agreements between CES/MAS programs that allow for staff changes.

2. In some states the MAS leader can be as far away as 6 hours which might contribute to communication problems. The general consensus was that the MAS leader was responsible to maintain effective channels of communication even if it wears out the seat of the driver. It is important for this point to be made at the time of hiring the MAS leader.

3. Evaluations of MAS staff should involve both CES and Sea Grant administration. Whoever has the lead position in the evaluation should consult and include the other administrator.

4. Professional development structures within CES were seen to be beneficial even to programs not totally integrated into CES. The interaction with other professionals and the career ladder options were definite, positive results. The psychological benefit of belonging to a "larger", "more established" organization was also seen as a benefit to the smaller and younger MAS programs.

EDITOR'S NOTE:

Many thanks to the four MAS leaders who took the time to organize their discussion groups' comments. Their efforts were appreciated by this editor.
A LOOK INTO THE CRYSTAL BALL

DOTTING THE "i's" AND CROSSING THE "t's": MARINE AND GREAT LAKES PROGRAMS IN TOMORROW'S CES PROGRAMS!!

Andrew J. Weber, National Program Leader,
Natural Resources and Rural Development Unit
Extension Service, USDA

During the past two and one-half days, a considerable amount of discussion and debate has been expended on a diverse number of subjects. As we reach the conclusion of this workshop, the time has come to sharpen our focus and the title of this section of the program suggests just that.

Perhaps it would be well to reflect on the objectives of this workshop that we discussed on Tuesday. Let me refresh your memory. They include:

1. To determine current levels of integration of Sea Grant (SG) Advisory Programs into Cooperative Extension Service (CES) Programs.
2. To develop recommendations to improve Cooperative Extension Service and Sea Grant administrative linkages, support and operational efficiency.
3. To enhance the effectiveness of Cooperative Extension Service supported Sea Grant Extension Programs.

Quite frankly, I think we have developed the means to achieve these objectives. That involves dotting the "i's" and crossing the "t's". The most important "i's" and "t's" to be dotted and crossed are the recommendations that we have developed here this week. They address three major issue areas that include Federal Agency Awareness of Marine Extension, National Approaches to Collaboration. Collectively, the recommendations include:

1. Enhance regular communication procedures between NSGCP and FES.
2. Presentations on Marine Extension Programs at regional meetings of Extension Directors and Assistant and Associate Directors.
3. Formation of marine resource subcommittee or task force of ECOP.
5. Establish national statement of CES Marine Extension Program direction through appropriate ECOP committee.
6. Establish common marine extension planning, reporting and evaluation procedures.
7. That joint CES/Sea Grant programs consider commonality of program titles that recognize the partnership that both the constituents and sponsors can easily identify.

8. Ensure marine extension initiatives are included in FES NARS reports.

9. Include Marine Extension Programs in CES long-range plans specifying staffing and implementation strategies.

10. Include marine issues, when local and State program priorities are established.

This represents the basic "i's" and "t's".

The reason that I emphasize the recommendations is that if they are to be effected, it will require a commitment from each of us to do our part. I am reminded of an old adage about "roads being paved with good intentions". We should not let these recommendations fall into that category. I challenge you, as we review the issue areas and recommendations in the next session, to think of the recommendations in terms of first person singular. What can I do to make them a reality? Following through on these recommendations are fundamental to strengthening Marine Extension Programs and moving them into the mainstream of the Cooperative Extension System.
DOTTING THE "T"S AND CROSSING THE "T"S:
MARINE AND GREAT LAKES PROGRAMS IN TOMORROW'S
CES PROGRAMS

An Extension Director's Perspective

B. K. Webb
Associate Dean and Director
Cooperative Extension Service
Clemson University

It is a pleasure for me to be here this morning. I have changed my speech at least 10 times. I thought I had it completed until John Woeste spoke a moment ago, and took all of my thunder!

When Marion asked me to come and speak as a representative of the Extension Directors, I thought it would be a very pleasant task for me. As I have sat here during the past two days and heard some of the comments of disdain and distrust that have been directed at CES, I feel like I am standing here representing the big, bad guy in the whole organization.

I do hope this morning, though, that I might be able to say something that will be constructive and possibly something controversial that will continue some of the very excellent dialogue that has been started.

Before I make my few comments, I think you should know a little more about where I am coming from. In a number of ways, I am somewhat nontraditional, and I am not sure I was the best choice Marion could have found to represent the Extension Directors. First of all, I am an engineer and you don't find many people with a hard science background in administrative positions. I don't know why, but you don't. A more important difference is that I came up on the teaching/research side, and not on the extension side. My folks love to tell me I just "don't understand." I've never been out there in one of the counties! That must be a great educational experience. I am sure it is, but when you come up on the teaching/research side, I am sure I am a nontraditionalist as far as Extension Directors are concerned.

As Marion pointed out, I am also a new boy on the block. I have only been the Director, since November 2, 1984, and that allows me to be somewhat of an idealist. I have not had time yet for all of my theories and ideas to be disapproved. I think it is important though that I have been involved in Sea Grant for quite some time. The first year that South Carolina funded Sea Grant research projects, I had a research project funded, and have been involved in Sea Grant in the state ever since.

To really establish my credibility though, and to let you know where I am really coming from, my greatest claim to fame is that I served as David Veal's major professor, when he did his Ph.D at Clemson several years ago. With that kind of a background, I am sure you are anxious to hear what else I have to say!

I've really enjoyed this session. It has been extremely beneficial to me, and it has been heartening to me. I told Margaret Davidson last night, we're in a lot better shape in South Carolina than I thought we were, or a lot of the other states are in a lot worse shape than I ever imagined! I think the former is probably true. I think we have a very good relationship in South Carolina. But, based on my experiences in the
past and, particularly, the comments I have heard during the last two days, I would like to be—when I was making some notes, I said "brave" enough, and then I put in parenthesis "stupid" enough, to offer some suggestions for your consideration, so that is what I will try to do.

Let me start, first of all, by saying that I think Sea Grant needs the Cooperative Extension Service more than the Cooperative Extension Service needs Sea Grant. I think if we are realistic about it, we would have to admit that. Arva Jackson pointed out yesterday very well that CES is an old organization, has been around a long time, has a lot of credibility, and is going to be here for a long time. Some of you from Sea Grant have talked about Mother telling you for the last five years that she didn't love you—zeroing out your funding. If I were in that kind of situation, I would be looking for a new home, or I'd certainly be trying to develop some kind of contingency plan. I was interested in John Kermond's comments yesterday about what the potential for some reorganization may be.

Another thing that has impressed me and, again, I am coming as somewhat of an outsider and look to wear the CES hat much more so than the Sea Grant hat, but several of the comments have impressed me, that in some states the Sea Grant people are wanting to have their cake and eat it too. I say that to point out, in a number of instances, there have been cases where the good parts of being associated or integrated in the CES, you would like to have those, without having to take the bad parts. I assure you I recognize up front that there are some good and some bad, and I will address that more in a few minutes. But I think if you are going to integrate the programs, then we have to take the good and the bad.

The other thing, and again coming as somewhat of an outsider, that has really impressed me in the last two days is that 31, or whatever the number may be, programs, regardless of what is done from an organizational or integrating standpoint, need to get together and speak with a more unified voice. There's strength in numbers, as I am sure you can appreciate. In good time, it may be o.k. to be out, sort of isolated and set aside, but when the times get tough, there's some strong advantages and benefits to being a part of a system. It is the tough times that are going to make it hard for individual units and programs to survive, in my opinion.

I have also been impressed by the fact that in many states there have been some very poor communications, even between two programs that have a common objective. I use that term advisedly. I know they are different, and I would like to second the point that John Woeste made that too often we tend to stress the differences, and that is a very negative approach and can lead to all kinds of problems. The common objective between Sea Grant and CES is to provide a service to a user group, so we've got to communicate with each other and cooperate, and I would certainly urge stronger cooperation in many cases than I have seen evidence of, regardless of what the organizational structure may be. I would remind you, as I am sure you are aware, that there can be no strong cooperative efforts developed if there is distrust on either side of the fence.

For my final point, I think this is an appropriate time, certainly in South Carolina, and I would suggest nationally, for everyone, both Sea Grant people and CES people, to consider joining together, integrating the programs, and moving forward together to get a job done. Let me point out that there has probably never been a better time to consider integrating Sea Grant or any other program in the CES than at the present time. I know in our state, and I think John and Craig and everyone else would agree,
CES is really in a state of transition. It certainly is in South Carolina. The economic crisis in production agriculture is having a major effect upon our programming.

Another thing that has surprised me during the last two days was the number of programs and apparently the number of states in which the Cooperative Extension Service is referred to as the Agriculture Extension Service. In South Carolina now, we have less than three percent of our population involved in production agriculture, and we are not going to survive in South Carolina as the Agricultural Extension Service. I'll be up front with you. This county, John, is probably the best example that I know that was used recently at a mid-management conference as an example of where the Cooperative Extension programs may have not stayed relevant, and the clientele said you are not meeting our needs, and you had to rethink and redo, and they have done an excellent job in that regard. We are having some societal and structural changes that are occurring in our society because of the crisis in rural America that is going to have some significant impacts on all of our higher educational programs and, particularly, our Extension programs. So I think the opportunity is available for us to join together and have a much stronger program than we have ever had.

My friend in Georgia, Tal Duvall, likes to use the term "relevant programming." At one time, a lot of people were using the term balanced programming, but from an Extension standpoint in South Carolina, and in most states, I think, we are trying to assess what the needs of the public are. We hear a lot about needs assessment and other terms that may be applied to it. No program will survive and succeed unless it fulfills a need—that's a basic premise upon which I operate. I don't care if you are talking about a teaching program, or an Extension Program, or any other program, it has to meet a need, or it will not survive. If we are going to survive then, we must meet the needs of people that we are serving, and that's our clientele. It does not matter to me whether they are marine interests, whether they are 4-H families or home economists. We also should recognize that every segment of our user groups that we are talking about, are in a state of transition also. There are some very dramatic and drastic changes underway in our families and family structure, in our societal structures, in our commercial agriculture, and I would say the same things are true in the marine area. All you have to do, I think, is look at what the population trends are going to be. John mentioned the ten-mile wide strip around the Florida coast. In South Carolina, ten years ago, the Piedmont, the northwestern corner of state, 250 miles from the coast, was the population center of the state—highly industrialized, the center of our textile industry. The projections are if current trends continue, by the year 2000, two-thirds of the population in South Carolina will live in our coastal counties. That has some very significant impacts, not only on Marine Extension, on Sea Grant programs, but on our Cooperative Extension programs. So there is a real challenge out there for all of us, and we are not going to run out of opportunities, challenges, and I think the time is appropriate for us to join together and move forward to serve our clientele. Thank you.
THE FUTURE OF MARINE EXTENSION: A PERSPECTIVE

Richard N. Jarman, Executive Director
Maryland Sea Grant College

There is in place today a productive network of coastal and Great Lakes marine extension programs. One very notable feature of the network is that differences exist among the component programs. There are differences in organization, funding, size and capability. The reasons for this "diversity" are many fold and would require an examination of each program to identify completely. In considering the future of marine extension, however, it will likely be the common characteristics among marine extension programs that most directly influence what happens. In large part, it will be the common elements or circumstances that contribute to the existence of a marine extension network which determine the future of marine extension.

Marine extension has developed as the result of collaborative efforts among many individuals and organizations. The partnership between Sea Grant and Cooperative Extension is clearly one of the most outstanding examples of successful collaboration. The Sea Grant/Cooperative Extension partnership provides a good framework for considering the factors and circumstances that will influence the future of marine extension.

What are the characteristics that Sea Grant and Cooperative Extension have in common? The programs are university-based. While there is and will continue to be a certain freedom associated with being university-based, there remains the fact that the programs must reflect and are guided by what is appropriate for a university to do. Sea Grant and Cooperative Extension are in the business of helping citizens and decision makers understand and use the best, most accurate information available, i.e., the programs are oriented to working with information and knowledge users. Both Sea Grant and Cooperative Extension are in partnership with federal agencies. This partnership involves funds, program direction and guidance.

While certainly not a comprehensive list of common elements, the three general features mentioned above—university-based, user oriented and federal partnership—have definite implications for the future of marine extension. Possibly the most profound implication embodied by these common elements is that marine extension is in an environment of rapid change, i.e., the "rules" under which marine extension is operating are changing. Administrators are being challenged by the public to re-evaluate the effectiveness and quality of university activities. The questions being asked and the actions being taken focus on ensuring that university programs remain relevant to the needs of society and use available resources most effectively. Change is also occurring within Sea Grant and Cooperative Extension's constituencies. User communities are becoming more sophisticated and their needs more complex. User expectations as to what universities can and should provide continue to change. Finally, the federal partners in Sea Grant and Cooperative Extension are faced with changing missions and responsibilities. Just as universities are being called on to reassess their role, so too are federal agencies. It is all too evident that the amount of federal funds available and how and to what they are allocated is undergoing change.

How this changing environment may affect Sea Grant, Cooperative Extension and in turn marine extension is suggested in a 1975 report, "The Post Land Grant University: The University of Maryland Report". Based on an extensive evaluation of the University of Maryland, this report deals with strategies for achieving new economies and greater
productivity within Land Grant universities. The report is an acknowledgement of 
increased fiscal austerity and cultural and societal change. A very positive note of 
effort for Sea Grant and Cooperative Extension is given.

The Research work of the Agricultural Extension Station should be as vigorous 
ever, as should the mass education efforts of the Cooperative Extension Service.

But food comes from the sea as well as the land, so marine science, coastal 
waters research and Sea Grant extension activities should increase at state universities 
on America's seacoasts.

This encouraging finding, however, is tempered by the recognized need for 
effectiveness and quality—"The University does not need to increase its public service 
appreciably, but it does need to be more methodical and better organized in its approach 
to public service". An important point to be taken from this report as well as the 
reality of today's circumstances is that Sea Grant, Cooperative Extension and the 
professionals of marine extension must pay attention to working together even more 
diligently than in the past. Rather than be driven by circumstances, the challenge is 
to join forces and move forward. Rather than constrain and consolidate, the view can 
and should be toward expanding and improving.

How might Sea Grant and Cooperative Extension respond to the challenges ahead? 
Some possible approaches include:

- Joint planning at the highest levels of management and if necessary 
  modifying current program planning methods and products.

- Greater attention to involving and drawing upon the full range of 
  capabilities and expertise that exists within the university community.

- Encouraging innovative approaches to organizing and delivering programs.

- Jointly identifying and organizing efforts that draw support from non-
  traditional funding sources.

- Clearly identifying and explaining to administration the partnership between 
  Sea Grant and Cooperative Extension must remain progressive, adaptable 
  and innovative. As Abraham Lincoln said:

  "The dogmas of the quiet past are inadequate to the stormy present. 
The occasion is piled high with difficulty and we must rise to the occasion. 
As our case is new, so we must think anew. We must disenthral ourselves."
DOTTING THE "i's" AND CROSSING THE "t's": MARINE AND GREAT LAKES PROGRAMS IN TOMORROW'S CES PROGRAMS!

Marion Clarke
Florida Sea Grant Extension Program

The very nature of the design and title of the Sea Grant College Program is patterned after the Land Grant College System. This is clearly identified in "Partners and Parallels" a publication resulting from the deliberations of the ECOP Task Force on Sea Grant Relations that was published in June of 1979.

The Task Force identified five shared goals that Cooperative Extension Service (CES) and Sea Grant (SG) have in common:

1. To extend research-based objective information to people who can use it.
2. To identify problems that need research attention.
3. To increase people's awareness of marine resources.
4. To conduct educational programs to encourage more effective conservation and use of natural resources.
5. To develop linkages to make it easier to work on common problems and to serve common audiences.

They also identified four major program areas of national significance that CES and SG have in common. Each of these major program areas have sub-program areas of mutual interest and concern.

I. Environment
   Pollution
   Land use
   Water use

II. Economic Development
    Jobs
    Public Services
    Transportation
    Coastal Recreation

III. Energy Development and conservation

IV. Consumer & Public Issues
    Food and Nutrition
    Food Safety
    Natural Resource Appreciation

A variety of administrative structures were found within the programs as well as among personnel titles and supervisory schematics. CES was similar yet different from the new marine element of the CES operations. Yet in 1979 when this committee examined CES/SG relations, they elected to name the document "Partners and Parallels". This gives a positive note to the findings of the Task Force. The Task Force apparently found more reasons to be partners in Marine and Great Lakes Extension Program delivery than there were differences.
I concur with this finding. I am of the opinion that a Sea Grant Marine or Great Lakes Extension Program is much better off as a part of the CES than programs operating a mini-extension program of their own. It is not a "rose garden" but no one promised a "rose garden". There are key differences that make the integration of CES and SG extension activities difficult to implement. Where there is a true team effort the CES/SG scenario is by far the most effective and efficient method of Marine Extension Program implementation.

To make the team effort most effective it must be a true and full partnership in order for SG Marine Extension to effectively parallel and operate within the CES. Programs that do not charge overhead for funds coming in through the Sea Grant funds have more dollars to invest directly into the Marine Extension Program. Overhead rates charged by institutions to implement Sea Grant Extension Programs range from 0 to 67%. Are there any overhead rates charged to USDA for funds coming in to implement CES programs? How many Sea Grant Extension Programs get a portion of the publication and training dollars available for CES programs? To truly be a full partner in extension programming, marine programs should have a fair share of these dollars. Do CES Agriculture Research and Experiment Stations invest dollars in marine and coastal issues? Are state lines available for marine extension personnel to augment the dollars available from Sea Grant? To what extent have county governments participated in funding local Marine Extension Positions. Is the same formula advocated for marine positions as are recommended and implemented for CES positions? Do marine extension program issues and operations receive their fair share of operational considerations equal to other CES programs such as Home Economics, Agriculture, and 4-H? Do they receive appropriate attention at the county, state, regional and national level?

If the issues and questions raised above can all be answered yes, your marine program probably has a full and true partnership with CES. If there are discrepancies as to equal treatment of the Marine Extension Program with other CES program elements, it can only be labeled a partial or limited partnership. If Marine Extension Programs are going to realize their full potential in the CES they must be considered a full partner.

Tomorrow's CES and Marine Extension Programs? I feel there is a lot to gain by this full integration of marine programs into tomorrow's CES. The stability and security of SG Extension Programs will be enhanced with the establishment of a full partnership. The recommendations of this workshop will prove to be the catalyst for initiating elements of this full partnership as the National CES Offices recognizes marine programs as a viable part of CES extension program.

Recently extensive pressure has been brought to bear upon CES at county, state and national levels to modernize their programs to develop and expedite research and extension programs that more effectively relate to the needs of today's society. This means developing extension education programs that relate to a primarily urban society with different interests and needs of the traditionally rural population and the small farmer of the past. Accountability to justify expenditure of tax dollars for extension activities has been receiving increased scrutiny at all levels of government.

The Cooperative Extension Service has a lot to gain from establishing this full partnership with Sea Grant Extension Programs. A large percentage of
coastal and Great Lakes states populations tend to concentrate in coastal and lake counties. Marine Extension Programs provide a natural and effective entree to urban populations. CES is examining how programmatic changes in existing traditional programs to accommodate the new trends in clientele needs can be accomplished. Current programs of Sea Grant Marine Extension Programs are focused on issues and programs of interest to urban populations around the nation. The effectiveness and stability of Marine Extension Programs that can be realized from a full partnership with CES will enhance the political and critical significance of CES and Sea Grant to urban populations around the nation. We, CES and SG, will all gain from effecting a full partnership at the earliest possible date.

The ECOP Task Force on Sea Grant Relationships established numerous mutual interests and the need for a partnership among Sea Grant and CES Programs around the nation. The changing needs of clientele and the changing nature of clientele served by CES and SG mandate changes in the way we do business. Change is many times resisted by the traditional ways we do what is perceived to be the best course of action. CES must change to survive the current surge of public opinion which results in political realities. They are effectively examining their position and preparing to make changes in programmatic approaches to extension education in a changing and diverse society. Let's hope that in the move to serve urban populations CES does not overlook the Marine Extension Program as an effective tool for serving this diverse group. Sea Grant Marine Extension Programs are currently working in urban areas on urban interests and as a full partner with CES it can play a key role in bringing CES to the urban areas of our nation.

If effective and full partnerships are developed between SG and CES, marine and Great Lakes Extension Programs will be considered a major program area, and among the most visible and valuable to CES in the decade ahead.