

Oregon's Coastal Marine Recreational Fishing Community:

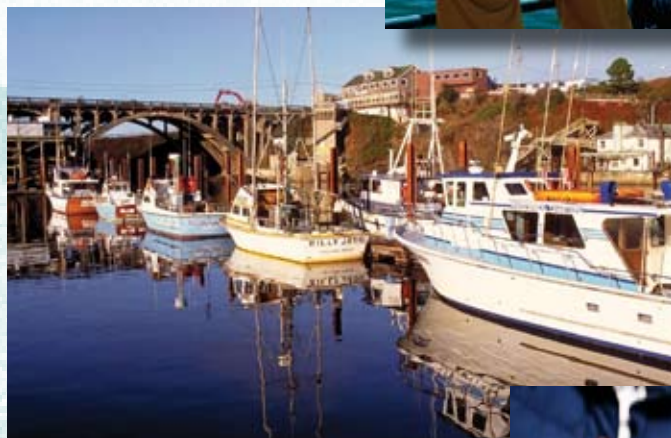
Who are they and why is it important to understand and communicate with them?

Laura Opsommer

MS in Public Policy/
Faculty Research Assistant

Flaxen D. L. Conway

Extension Community Outreach Specialist



Text by Laura Opsommer and
Flaxen D. L. Conway; editing by
Rick Cooper; design by Patricia
Andersson.

© 2007 by Oregon State University.
This publication may be photocopied
or reprinted in its entirety for
noncommercial purposes. To order
additional copies of this publication,
call 541-737-4849. For a complete list
of Oregon Sea Grant publications,
visit <http://seagrants.oregonstate.edu/sgpubs>.

This report was prepared by Oregon
Sea Grant under award number
NA16RG1039 (project number
A/ESG-06) from the National
Oceanic and Atmospheric Admin-
istration's National Sea Grant
College Program, U.S. Department
of Commerce, and by appropriations
made by the Oregon State legislature.
The statements, findings, conclusions,
and recommendations are those of
the authors and do not necessarily
reflect the views of these funders.

Photo credits: cover collage, top,
© iStockphoto.com; second,
© iStockphoto.com/William Royer;
bottom, © iStockphoto.com/Enrico
Fianchini. All photos not otherwise
labeled © Oregon Sea Grant.



Oregon Sea Grant
Corvallis, OR

ORESUG-07-005

Oregon's Coastal Marine Recreational Fishing Community:

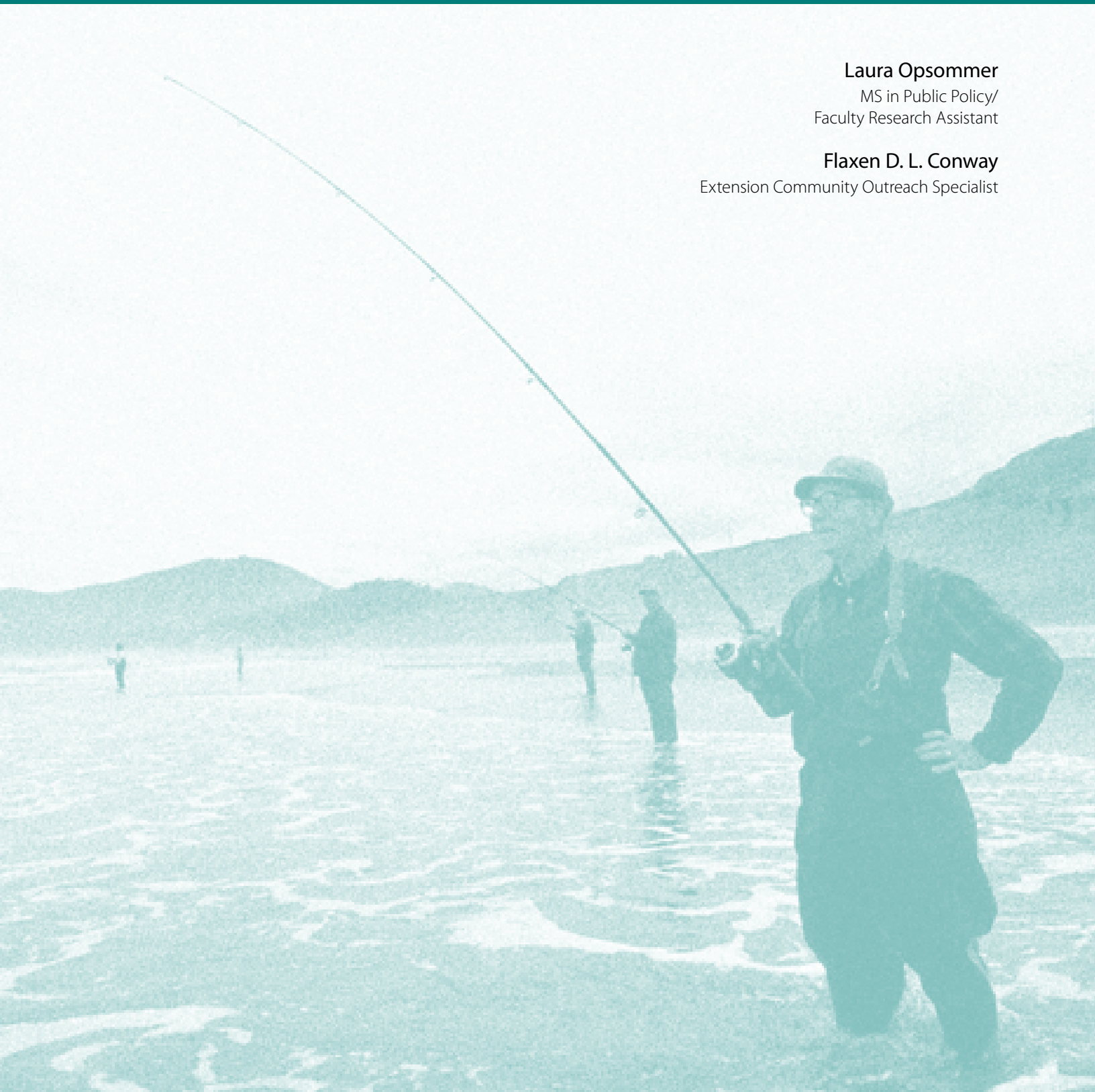
Who are they and why is it important to understand and communicate with them?

Laura Opsommer

MS in Public Policy/
Faculty Research Assistant

Flaxen D. L. Conway

Extension Community Outreach Specialist



Contents

Executive summary	5
Introduction and context	6
A glimpse of the CMRFC	8
What is successful communication and why is it important?	10
The challenge in reaching a diverse community.....	11
Communication in the management setting.....	11
Study methods	12
What information needs to be communicated and how	14
The management process.....	14
Regulatory information.....	15
Receiving information	16
Factors that influence communication	17
Perceptions between communities impact communication	17
Agencies: overworked and underfunded	17
Time and budget constraints.....	18
Opportunities for internal improvement.....	19
Data collection, analysis, and use.....	19
Regulations.....	20
Cultural values and personal attitudes.....	21
Personal responsibility.....	21
The connection between involvement in the management process and individual perceptions.....	22
Organization and representation within the CMRFC.....	23
Overview of communication methods and their impacts on relationships	24
Face-to-face communication	24
The written word—newsletters, reports, flyers, brochures, and newspapers.....	30
Electronic methods.....	31
Radio	34
Conclusion	35
References	37
Acknowledgments	38

Executive summary

As marine fishery resources in Oregon decline and demand by user groups increases, fishing communities face more and more regulations. This leads to increased interaction between management agencies and user groups, frequently occurring through formal public involvement methods and informal interactions.

Communication is at the heart of these interactions. Effective two-way communication can result in mutual understanding and a positive outcome for all parties involved. Yet, both parties involved must be willing to understand each other to achieve effective communication.

In 2004 a small study explored Oregon's coastal marine recreational community and the current state of communication within and between this community and the fisheries management community. Our objectives were to understand the methods of communication used, to describe the current state of communication, and to formulate suggestions for improving communication.

This publication focuses on factors that affect communication between these communities, and on potential improvements to current communication. It suggests that taking small but important steps toward making effective communication a priority is a good idea for both communities, and can build upon their genuine, mutual concern for the future of the resource. Anyone interacting with the coastal marine recreational fishing community (fisheries managers, the commercial fishing community, and other coastal resource users) would be wise to better understand and learn strategies for communicating with this understudied and possibly underrepresented user group in Oregon.

Introduction and context

Standing on the shore of Oregon's coast and looking out across the Pacific Ocean, it seems so vast—almost endless. At one time, people believed the ocean's resources were endless as well. Now we know better, and fisheries managers are quick to point out that demand by user groups for fishery resources has been increasing and that managing fisheries resources is a complex process.

People accessing these resources find themselves facing ever-increasing regulations. This has led to increased interaction between management agencies and user groups. These interactions occur through informal interactions as well as formal, public-involvement methods. Effective, two-way communication in these settings can result in mutual understanding and positive relationships between management agencies and stakeholders. Lack of communication or misunderstanding can result in ill will, conflicts, and rule breaking.

A study by Gilden and Conway in 2002 explored communication between the commercial fishing community (people who earn their living by harvesting, processing, or supporting commercial fishing) and the fisheries management community (members and staff of state or federal agencies or commissions)

(Conway et al 2002). Communication methods and factors influencing communication within and between these two communities—differences in priorities, culture, representation, and willingness—were documented for the first time in *An Investment in Trust: Communication in the Commercial Fishing and Fisheries Management Communities* (ORESUG-01-004). Gilden and Conway (2002) concluded that improving communication would have to take place on many levels, and they provided several suggestions for both communities for making communication more effective in the short and long term.

However, the commercial fishing community is only one of the user groups interested in marine fisheries resources. Another key stakeholder in the allocation of marine fish stocks is the coastal marine recreational fishing community (CMRFC). Failure to understand and communicate well with the CMRFC may reduce the effectiveness of fisheries resource management.

Our study took a “snapshot or a glimpse” of Oregon's CMRFC and explored the current state of communication within and between them and the fisheries management community (FMC). We investigated the



thoughts and preferences of Oregon's CMRFC, how FMC and the CMRFC communicate with each other, and how effective these communication methods are from both communities' perspectives. Our objectives were to understand what methods of communication are used within and between the two communities,

when communicating with fisheries managers. For example, both the CMRFC and the commercial fishing community characterized the fisheries management process as complex and inflexible. Yet the two communities diverged on the most effective methods of communication that managers should use to reach

two days) about the closure, resulting in the cancellation of planned fishing trips. Consequently, members of the CMRFC—specifically charter operators—lost a great deal of income. Not surprisingly, this event fostered very negative feelings toward the Oregon Department of Fish and Wildlife (ODFW), which sets the quota. Therefore, given the sociopolitical context these two communities were experiencing during the time of the project, some individuals expressed strong feelings regarding the poor state of communication between the FMC and the CMRFC.

Effective, two-way communication ... can result in mutual understanding and positive relationships between management agencies and stakeholders. Lack of communication or misunderstanding can result in ill will, conflicts, and rule breaking.

understand the current state of communication between them, and formulate suggestions for improving communication.

It's important to say up front that studying communication can be challenging because for every generalized perception of communication, there is evidence that the opposite is occurring. For example, for each negative comment shared there was a positive, counteracting comment. This was especially true within the CMRFC, which is not surprising given the size and diversity of the community. Yet despite this challenge, our study identified themes that can be connected to form a broad understanding of the current relationship and the state of communication between the CMRFC and the FMC.

Results from our study also bring to light the ways in which the CMRFC resembles and contrasts with the commercial fishing community

specific stakeholder groups. Unlike the commercial fishing community, the relationship between the CMRFC and the FMC has not been well documented. The CMRFC is more diverse in member location, values, and preferences than the commercial fishing community, possibly contributing to the need for targeted, innovative communication methods. The reasons and factors that lead to a lack of involvement, trust, and communication may be diverse and unique to the characteristics of each community.

It should be noted that our study was conducted in the summer and fall of 2004, during which the marine recreational groundfish fishery was closed unexpectedly (an unexpected amount of good weather led to greater effort by the CMRFC, resulting in reaching the quota earlier than expected). This early-season closure had not occurred previously for groundfish species, and the CMRFC was given very short notice (one to

Lastly, it's important to note that the state and federal government share legal responsibility for the management of ocean-dwelling fish stocks. States control fishing from the shore out to three nautical miles, and the federal government has authority from the edge of the states' boundaries to the edge of the national boundary (200 nautical miles). In practice, many stocks are managed jointly by state and federal interests.

A glimpse of the CMRFC

What do we mean when we say the word “community”? For many, the term suggests a physical location, such as a town or a neighborhood (say, Newport or west Salem). Social scientists call each of these a “community of place.” We might also use the word to describe a group of people bound by a common belief, hobby, or occupation. We could speak of a religious community, a cycling community, or a fishing community. Social scientists call this type of grouping a “community of interest.”

For our study, we defined the CMRFC as a group of people—coastal marine recreational fishers—who concentrate their fishing effort in the marine waters off the Oregon coast. This community includes men, women, and families from all ethnic and economic backgrounds represented in this state. Whether residents or non-residents of Oregon, all persons 14 years or older must have a valid Oregon Angler license to fish in salt- or freshwater. A combined angler tag is required for fishers fishing for steelhead, salmon, surgeon, or Pacific halibut.



In our study, we included in the CMRFC both private recreational fishers and charter operators. We do, however, recognize that there are divided opinions regarding the inclusion of charter operators as a

... in 2002, the CMRFC caught 432 metric tons of groundfish, nearly a third of the total catch, indicating the size of their impact on ocean fishery resources ...

segment of the recreational community. Given that both charter operators and private recreational fishers follow the same regulations, we consider them part of the same community.

The CMRFC also encompasses recreational industry-support individuals. These include sportfishing organizations and tackle shop and marina representatives. All the members of this community interviewed for this study were from Oregon; they varied in their fishing location, targeted species, and frequency of participation.

The CMRFC, while less organized than the commercial fishing community, does have a substantial impact on fish stocks. In 2000, 285,000 individuals participated in Oregon's marine recreational fishery, with Winchester Bay, Newport, and Garibaldi hosting the greatest number of participants (PFMC 2003). Additionally, in 2002, the CMRFC caught 432 metric tons of groundfish, nearly a third of the total catch, indicating the size of their impact on ocean fishery resources (PFMC 2003).

The CMRFC within Oregon is made up of individuals who are quite diverse in terms of frequency of fishing, the species targeted, preferred fishing locations, and the level of involvement in management issues. But do we really understand the views and values of the CMRFC within Oregon?

Research from other areas of the country documents the values of recreational fishers in general; mail surveys assessing the preferences, attitudes, values, and behaviors of recreational fishers have been

conducted on a limited basis and in few locations (Dawson and Wilkins 1981). The results of these surveys have revealed a diverse range of preferences as well as diverse motivations for fishing (Radomski 2001; Dawson and Wilkins 1981). Our study was not designed to do this specifically, yet it does provide a glimpse of the perceptions and desires of the CMRFC.



What is successful communication and why is it important?

In its basic form, communication is the process of assigning meaning to verbal and nonverbal messages. In formal settings (presentations, town halls, etc.), we are continually exposed to “one-way” communication. You know the scenario—someone presents information and we listen as an “audience.” Two-way communication, on the other hand, is where one or more individuals engage in an exchange of ideas or perspectives. It’s been said that “effective” communication has been achieved when this process of two-way communication results in mutual understanding and a positive outcome for all parties involved (Conway et al. 1999; Collier 1995). It is important to realize, therefore, that in order to achieve effective communication, both parties involved must have a willingness to understand each other.

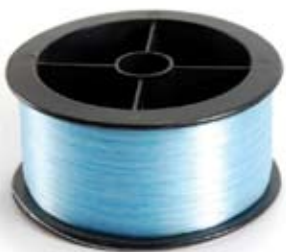
Accomplishing successful communication within fisheries management can result in positive outcomes and a greater understanding of the communities involved (Gilden and Conway 2002). In order for the natural-resource managers (such as the FMC) and user groups (such as the CMRFC) to foster a relationship, there must be two-way communica-

tion (Walker and Daniels 1997). The responsibility for this falls on both the managers and the user groups.

The process of successful two-way communication involves several stages (Cultip and Center 1978), each of which needs to be given its due attention:

- The values and needs of the sender and receiver should be understood before a method of communication is chosen.
- The method of communication chosen should be understandable.
- The message communicated should avoid the use of language that will not be understood by the receiver.
- The message should encourage feedback.

The challenge of communication lies in communicating meaning. People communicate from their own frameworks and worldviews, which are based on past experiences, values, perceptions, and a multitude of other factors (Haney 1973). Therefore, it is important to consider the context in which communication occurs. In fact, the real work of communication lies in knowing what meanings other people hold, and how these meanings can be used to construct an intended message (Howell 1982).



Perception is the process of adding meaning to incoming messages. Unfortunately, perception can often have little to do with reality. Misunderstandings based on false perceptions can lead to lack of trust, defensiveness, resistance, false assumptions, stereotyping, and failure to see alternatives or gray areas (Haney 1973; Howell 1982). Each of these is present in communications between the CMRFC and FMC.

The challenge in reaching a diverse community

Other studies have indicated that managers cannot effectively communicate with constituents—or accurately conduct management activities—unless they know the preferences, attitudes, values, and behaviors of the users of the resource (Brown 1996; Barber and Taylor 1990; Henning 1987; Dawson and Wilkins 1980). In fact, Dean states that “it is essential that fisheries management agencies keep anglers informed and thoroughly listen to their needs and wants” (1996:172). Once the audience’s values and preferences are known, effective and good communication programs can be designed (Brown 1996).

The CMRFC presents somewhat of a unique challenge in that it is a diverse community spread throughout the state. Therefore, knowing how to reach the community is quite difficult. This has contributed to little interaction between the FMC and the CMRFC.

Communication in the management setting

Communication between the FMC and the CMRFC can occur on formal and informal levels. The Pacific Fisheries Management Council (PFMC) states that “getting involved means commitment and hard work” (PFMC 2003:1). Recently the PFMC has produced educational material on how citizens can become involved in the process. One important step individuals can make is to understand how the council process operates and how decisions are made. This could facilitate participation in the process at the right time and in the required format. Successful, direct participation in the council process can be accomplished through

- making informed comments
- interacting with a council member through whom your opinion can be heard
- contacting managers at meetings or over the phone
- attending and testifying at council meetings
- writing letters to council members
- serving on advisory panels
- helping with research efforts

It’s important to recognize that each of these methods presents the opportunity for either effective communication or miscommunication between the FMC and the CMRFC.

Some of these methods require a greater degree of knowledge and motivation. For example, testifying at a council meeting means interacting with the entire council in a

formal setting and talking into a microphone with a given time constraint. Others have found that this process is potentially intimidating to individuals who are not part of the FMC and requires more effort and time than members of the CMRFC can commit to (Dwyer 1997).

... Dean states that “it is essential that fisheries management agencies keep anglers informed and thoroughly listen to their needs and wants”...

But that’s talking about fisheries management at just the federal level. User groups can also participate in the management process at the state level. The ODFW Marine Program has several mechanisms in place that allow for constituent participation. Similar to the federal level, user groups can directly contact ODFW employees and attend local public meetings held by the Marine Program. Yet often, involvement at the state level is less formal, more accessible, and more inviting. This has led to a greater level of involvement and interaction by CMRFC members with state-level fisheries managers, leaving federal fisheries management somewhat of a mystery. CMRFC members who choose not to become involved directly in either management process can join organizations that represent and advocate for their interests, such as the Recreational Fishing Alliance (RFA).

Study methods

Although its importance is often overlooked, communication is an essential element in fisheries management. It is important to address the human dimensions of management as well as the biological and ecological factors. This study investigated communication between and among the CMRFC and the FMC through conducting a series of semi-formal ethnographic interviews with members of both communities. Commonly used to explore complex issues, ethnographic interviews allow “informants” to help shape the interview and raise topics that might otherwise not be explored, instead of limiting interviews to a strict set of predetermined questions (Berg 2001; Cassel and Symon 1994).

The CMRFC is described in the section above. Similar to the Gilden and Conway study (2002), for this study we considered the FMC as comprised of members

and staff of the Pacific Fisheries Management Council (PFMC), the Oregon Department of Fish and Wildlife (ODFW), the Oregon State Police, and the Pacific States Marine Fisheries Commission (PSMFC), a tri-state entity that provides information to management agencies. These agencies are actively engaged in the management of marine recreational fisheries and are the most likely to have contact with the CMRFC. Those interviewed within the management agencies ranged from fish checkers to administrators.

We conducted 31 interviews, in person or over the telephone, with members of both communities. Interviews ranged from 30 minutes to two hours. Those interviewed were selected through the technique of “snowball sampling,” in which each interviewee suggests other potentially beneficial contacts. Once a repetition of names occurs, sampling ends. Table 1 below summarizes the distribution of individuals interviewed from each community.

This study illuminated some of the distinct differences between the two communities, and information about mistrust of the FMC by the CMRFC emerged from the project, similar to the Gilden and Conway study (2002). The ethnographic approach we took with the study allowed for the discovery of themes, as well as the degree of their depth within and between the communities. Personal, face-to-face interviews allowed people to share personal experiences and stories in their own words. The language used and the way in which the stories were told allowed us to grasp the feelings behind their statements. Participant statements quoted throughout this publication reflect thoughts and feelings shared by many people in each community.

Geographic distribution of interviewees	Number interviewed
North coast	9
Central coast	5
South coast	4
Urban centers*	12
Types of CMRFC members interviewed	Number interviewed
Charter operators	4
Private fishers	9
Recreational fishing industry support**	8
Types of FMC members interviewed	Number interviewed
State agencies	2
Federal agencies	5
Enforcement agencies (state police)	2
Tri-state, neutral entity that collects/supplies data	1

*Table 1. Distribution and types of community members interviewed (*Urban centers include Portland or other cities in the Willamette Valley. **Industry support includes advocates/organizational leaders and tackle shop and marine representatives.) Used by permission.*

What information needs to be communicated and how

During interviews, folks from both communities shared specific expectations of what and how information should be communicated. Understanding this is helpful because it could lead to improvements in the relationship between the CMRFC and the FMC. Table 2 provides a listing of information needs, followed by a more in-depth discussion of each.

The management process

Both research and experience have documented that, as with other natural-resource management processes,

stakeholders in fisheries management need to be educated on how the process works. This was true in our study as well, where 62 percent of the CMRFC members interviewed stated a desire to know how the fisheries management process works.

Several shared that they would like to know how to access the process and be effective in it, including knowing whom within management agencies they can contact when they have questions. They shared that they were more familiar with state-level management activities, probably due to the local presence of state agencies.

Information requested or thought to be important for the CMRFC	CMRFC (n = 21)	FMC (n = 10)
How the management process operates	62%	70%
How to effectively influence the management process	29%	70%
How data is collected, analyzed, and subsequently communicated:		
• Data quality is OK but mistrust how data is used	14%	NM
• Dissatisfied with data quality	29%	NM
• Practical knowledge/data should be used	14%	NM
Regulatory information (size limits, species identification, seasons)	100%	80%
Rationale for regulations	33%	3%
Who controls the regulation (state or feds)	62%	NM
Information needs to be shared in a timely manner	24%	NM
Information needs to be shared in a user-friendly manner	57%	NM

Table 2. Information requested or thought to be important for the CMRFC (NM = not specifically mentioned by the FMC). Used by permission.

On the other hand, they were largely unaware of the activities conducted by the PFMC and how state and federal agencies work together to accomplish management. They stated that it is the job of ODFW to explain the management process, and currently this is not adequately done.

Members of the FMC felt similarly, with 70 percent stating that it was important for the CMRFC to know how the management process works, including which fisheries are state managed and which are federally managed. Furthermore, they commented that CMRFC should know how to influence the management process through effective forms of involvement.

“There are a lot of details that need to be communicated and understood in order for someone to effectively interact and know where to best interact with the system and show up at the right time, the right place, and with the right kind of comments. For those who want to be involved in the system, information about how the system is organized, what the steps of the different aspects of the process are, and what is important in those aspects is probably the most important thing to help them interact.”

—FMC, federal agency

Several members of the CMRFC stated that if the FMC knew the desires and values of the community, information could be provided in the appropriate manner. In order to achieve this, two CMRFC members suggested that the FMC conduct a widespread mail survey of anglers.

“Because if you want to know what people think, don’t ask them to drive

three hours to a meeting; send a little questionnaire out. What I really want them to do is a randomized poll . . . ”
—CMRFC, private fisher

Regulatory information

Anyone participating in marine fishing needs to know the up-to-date regulations. This came out in our interviews; every member of the CMRFC interviewed stated the

... every member of the CMRFC interviewed stated the need to know what the regulations are, including identification, season, and size limit information for each species. ... They would also like to know how the regulations are made and the logic behind them.

need to know what the regulations are, including identification, season, and size limit information for each species. However, they said they would like to know more than just the regulations. They would also like to know how the regulations are made and the logic behind them. This is especially relevant for in-season adjustments, which are somewhat of a mystery to the CMRFC.

“... education’s so important. If you knew the reason behind why that rule was written the way it was written in the first place, then it would be like okay, okay, okay, I understand now.”
—CMRFC, marina representative

“A lot of recreational fishermen do not have a very positive attitude towards the managers because there’s been a long history of making regulations without explaining why.”

—CMRFC, organization representative

Furthermore, they would like to know which regulations are directly controlled by ODFW and which are controlled by the PFMC.

In designing their education and outreach programs, the FMC communicates what it thinks is necessary for the CMRFC to know. Folks interviewed from the FMC stated that the CMRFC mostly needed information immediately relevant to participation

in the fishery. Nearly every member of the FMC stated the need to know up-to-date regulations, including season information and how to correctly identify fish species. According to a majority of FMC interviewees, it is the responsibility of the CMRFC to know what the regulations are; however, they acknowledged their responsibility to provide the tools to the CMRFC in order to know what the regulations are.

“... people coming from elsewhere that haven’t been informed about updated regulations, we encourage them to call in and see what has changed. But people don’t necessarily do that. People have to be in tune to what is going on.”
—FMC, Oregon State Police representative

Only a few members of the FMC expressed the need for the CMRFC to know the reason behind the regulations.

“They need to know the regulations. And more importantly, the reason behind the regulation. I would say that’s first and foremost. . . . It’s important that people not only comply with the law, but [know] what breaks the law and the management philosophy behind that. That way, you create advocacy for the resource, and that’s important.”

—FMC, PFMC member

“. . . there is a huge lag time between data. I mean, we might do a stock assessment this year and it won’t come into play for three years down the road. And that is hard for an industry to wait that long for something to happen.”

—CMRFC, charter representative

The desire to receive information that is user-friendly and makes sense

They would also like management information to be available statewide.

They suggested it would be beneficial to receive a mailing to notify them of any significant changes to management plans or regulations. However, this assumes that the changes are known far enough in advance to notify the community via mail. Nearly every person interviewed within the CMRFC wanted advanced notification of in-season changes. There was a strong desire not to be surprised with season closures or other in-season regulation changes.

Many of the requests and suggestions made by the CMRFC do not take into account the constraints faced by the FMC. This most likely can be attributed to a lack of understanding of the environment in which fisheries management currently takes place.

Nearly every person interviewed within the CMRFC wanted advanced notification of in-season changes. There was a strong desire not to be surprised with season closures or other in-season regulation changes.

Receiving information

We also learned how the CMRFC would like to receive information from the FMC. Receiving information in a timely manner was the most important characteristic to the CMRFC. Timely data, specifically, was important to several folks. This request stems from the feeling that there is too much lag time between when a stock assessment is conducted and when the results are used in the development of fisheries management plans (FMP).

to them was expressed by 57 percent of the CMRFC folks interviewed. They described this as presenting information in a concise format so they don’t have to spend large amounts of time sorting through long and confusing documents.

“If . . . [they] can’t boil something down to a page or two, they [the public] don’t have the time for it. And so I think that training to listen and translate and try to think about the person you are talking to and what their specific needs are so you can answer their questions based on where they are coming from [is essential].”

—CMRFC, organization representative

Factors that influence communication

Several themes emerged during the interviews about factors that affect communication between the two communities. Communication between communities can be enhanced by each community gaining a better understanding of the other's perspective.

Perceptions between communities impact communication

Previous surveys have shed light on recreational fishers' views toward the management process; regulations are hard to locate and understand, therefore managers need to make extra efforts to simplify and clearly explain regulations (Brown 1996). Furthermore, the complexity of regulations frequently leads to angler confusion and frustration (Dawson and Wilkins 1980). Those familiar with the management process have characterized "the system that produces fishery management regulations [as] cumbersome and inflexible, with a tendency to enact regulations that fishers view as overly complex and inappropriate for their fishery" (2003:472). It is likely that the recreational community within Oregon feels similarly.

Specifically in Oregon, the marine recreational fishing community has expressed frustration that anecdotal information is not included in management decisions (RecFish 2000). Recreational and commercial fishing groups feel they often provide information and data to the FMC that elicits neither feedback nor results (Gilden and Conway 2002). This can lead to frustration, which can result in falsification of subsequent data provided to managers (Gilden and Conway 2002). Additionally, catch limits determined by the management process are frequently inadequate, according to the CMRFC. For example, in the Pacific Northwest, the CMRFC has not been satisfied with past PFMC decisions regarding catch limits of cod, rockfish, and halibut (RecFish 2000).

Agencies: overworked and underfunded

Management of natural resources is not an easy task; ecological, political, sociocultural, and economic factors all need attention (Brown 1996). There are inherent barriers within the natural-resource management environment that complicate both communication and the relationship between the FMC and the CMRFC. Managers of marine fisheries are

faced with “the impossible task of trying to simultaneously optimize management for recreational, commercial, and artisanal fisheries” (McMullin 1996:61).

The most-cited and important communication barriers appear to stem from the structure of the management process. To begin with, the management community has expressed a desire to communicate with user groups, but has cited a lack of time and funding to do so (Gilden and Conway 2002). On the other hand, managers often doubt the validity of public input, are not trained to determine and understand public values, assume the angling community has little concern for the resource, and find themselves in a political management process full of jargon—all of which present barriers to effective communication between the FMC and the CMRFC (Magill 1991; Kohler and Hubert 1999; Fazio and Gilbert 2000).

Furthermore, the formal process of fishery management leads to public intimidation, resulting in the participation of only the highly motivated in the management process (Walker and Daniels 1997). Those who do participate in the process have indicated that meetings are viewed as ineffective because management does not seem to truly care about obtaining public input, there is often not enough time for everyone to voice their opinions, and the meetings are often held at inconvenient times and only to announce pre-made decisions (Dean 1996). Training natural-resource managers to communicate has been cited as a way to improve the relationship between the manag-

ers and stakeholders (Gilden and Conway 2002; Brown 1996).

There is no doubt that the FMC is faced with a difficult task. As shown below, the public is often unaware of the roles and duties of management agencies. Folks interviewed for this study had varying attitudes toward the FMC, due in part to their level of involvement with and knowledge of management issues.

Time and budget constraints

At the federal and state level of fisheries management, all FMC interviewees cited budget constraints as a primary barrier to improving communication efforts. The ODFW Marine Program, according to both communities, is faced with an unacceptable workload and a very tight budget. Folks shared that they would like to see more staff available to dedicate time to education and outreach efforts.

“... from our own internal end of it here, [having] finances and people who would be more or less just dedicated to education, I think [would be] quite beneficial.”

—FMC, ODFW staff

“You have to give the Marine Program more money. More personnel. You have to arrange it so that the amount of money that comes from recreational fishermen, through the programs, actually goes to the Marine Program.”

—CMRFC, private fisher

Similarly to ODFW, the PFMC shared that they felt overwhelmed with duties, leaving little time to

devote to internal and external communication. Staff members indicated that their time was consumed with complying with legal requirements and following the guidelines of the management structure.

“The Council has to follow a process that Congress dictates to them under the Magnuson Stevens Act, and it has to be reviewed by the NMFS [National Marine Fisheries Service]. And they have to meet all legal standards, and they get sued every three minutes if they don’t, and they still get sued even if they do. So in defense of the council, it is hard work to do this. People are really overwhelmed a lot of times.”

—Other, Sea Grant Extension agent

“Again, it [communication] is relatively expensive and not easy to do, just because the complexity of the management scheme, and they [PFMC] have to [manage] groundfish, salmon, coastal pelagic, and highly migratory [species], and have to meet essential fish habitat and habitat of particular concern requirements.

And you have to minimize impacts of fishing gear on the habitats, and they have to draw EIS’s [Environmental Impact Statements] up for all of this stuff. It is not an easy job.”

—Other, Sea Grant Extension agent

FMC members did state that if they had more time and a greater budget, communications with stakeholders could be improved. They expressed frustration with the short amount of time they have to notify the public of management changes, which is primarily a consequence of the difficulty of predicting ocean conditions and the future status of fish stocks.

However, a vital component to improving communication is prioritizing communication within agencies. Currently, often due to a lack of time and budget, communication efforts are “put on the back burner.” In order to improve outreach efforts, there must be a willingness to prioritize and invest in communications throughout management agencies.

“It’s going to take an investment by the council. Financial and . . . well, financial investment, I guess. The problem is that communication is often put off because people are so worried about other things. There’s so many things that the council has to do. And communication seems this touchy-feely subject that doesn’t, you know, it’s like ah, we’ll do that later.”
—FMC, PFMC staff

Opportunities for internal improvement

Another problem identified by a member of the FMC is that there is miscommunication within the FMC, for example, between ODFW and the PFMC. Improving coordination between the PFMC and ODFW could result in a more-effective outreach campaign. According to folks interviewed from the FMC, both internal and external communication need to be improved within fisheries management agencies.

On the other hand, changes are occurring within the PFMC with regard to communication. Recently, the PFMC developed a communication plan comprised of three parts: communication with the public, communication during council meetings, and communication

within its advisory bodies. The goal in developing the plan is to examine communication in each context and offer improvements.

Those involved in developing the communication plan stated the importance of maintaining a positive attitude toward communication efforts:

“You know we’re saying it over and over and over again. The fact of the matter is that we repeat [the message] over and over and over again, but it’s to different audiences and often it’s the first time that particular audience has heard it. It’s kinda like a performer that goes on stage every night and does the same play. They have an under-

stuck to commercial activities where if you look around the nation, a lot of the Extension offices are heavily involved with recreational fisheries.”
—FMC, ODFW staff

Data collection, analysis, and use

How data is collected, analyzed, and subsequently communicated was of great importance to CMRFC interviewees. Their opinions are divided over the data used by the FMC to develop fisheries management plans (FMP). Some individuals trust the science and data but mistrust how the data is used to develop FMPs.

FMC members . . . expressed frustration with the short amount of time they have to notify the public of management changes, which is primarily a consequence of the difficulty of predicting ocean conditions and the future status of fish stocks.

standing that that audience is there for the first time. It’s new for them. We kinda have to think in that regard.”
—FMC, PFMC member

Lastly, several folks interviewed from the FMC stated that involving Oregon Sea Grant Extension agents in communication could help them to save time. The Extension Service has

“. . . tended to be focused on commercial fishing fleet and that does not have to be that way.”
—FMC, Pacific States representative

“I would really like to see Oregon State University Extension Service become involved. They’ve pretty much

“It’s about building trust. Bottom line, it’s about building trust. It’s unfortunately one angler at a time.”
—CMRFC, private fisher

Some have the perception that good science is frequently used for political purposes. These folks shared a respect for the scientific community but felt the management community makes decisions for political purposes.

“It’s just how it’s [data] used that I always have a problem with. Who’s using it, how are they using it, who’s ignoring it? Why are they ignoring it? That’s the big question. Or why are they using it? They become, the data

become pawns politically.”

—CMRFC, private fisher

On the other hand, 29 percent of the CMRFC expressed dissatisfaction with the data used to develop FMPs. In general, these folks felt the data was incomplete, due either to a lack of sampling or failure to incorporate anecdotal data. Ten percent expressed strong views toward the data, saying that it is “terrible” because the parameters used to get data and the limited sampling along the coast are seen as inadequate. A few folks expressed a desire to share their catch data with the FMC to improve data collection. A minority disagreed with the FMC that the stocks are even in trouble.

“I think that if they [CMRFC members] were faced with having to make a decision about whether or not to maintain the health of the stock, they would agree that yes, they do want the stocks maintained, they do want them healthy. I don’t believe that they would agree they’re [stocks] in trouble at all. And that’s where we have the disconnect, because they [CMRFC members] don’t have the education nor do they want to educate themselves.”

—CMRFC, private fisher

Many felt that both managers and scientists frequently fall back on the statement that they are using the “best available science.” As seen above, some folks would disagree that the science was always accurate. For example, many folks held negative opinions regarding the current stock assessments, saying that scientists were “just guessing” (CMRFC, private fisher). There is a perception that the data is over-

generalized. For instance, after a survey is conducted on one segment of the coast, management decisions resulting from the survey are applied to the entire coast. Some folks stated that fisheries management could be greatly improved if the coast were managed in sections.

“You know that is the thing about this coast, is it is so diversified. One of the things that came up in the management measures was a ban on rockfishing outside of 40 fathoms. Well, in a lot of ports, that had zero impact, and some ports it was a 100% shutdown, they absolutely lost their fisheries.”

—CMRFC, charter representative

CMRFC members get frustrated with the volume and complexity of regulations and sometimes discontinue their involvement due to their frustration.

Several folks expressed a desire for the FMC to incorporate more practical knowledge into management decisions.

“The only thing that we wish is that they’d listen to us a little bit better sometimes, because we’re on the water and they’re not. And that can be frustrating for us. We tell them what we actually see, and their scientist is tellin’ ’em something else, and their scientists aren’t on the water like we are.”

—CMRFC, charter representative

This desire for management agencies to incorporate more practical

knowledge was also seen with the commercial fishing community in *An Investment in Trust* (2002).

Regulations

In general, CMRFC members get frustrated with the volume and complexity of regulations and sometimes discontinue their involvement due to their frustration. One hundred percent of the folks interviewed stated that the regulation packet is an inadequate source of information, because it is printed before all management decisions are made. Several folks felt the Oregon recreational fishing community was over-regulated.

“I am sure we are one of the most heavily regulated industries in the state, and that feeling of big brother or government watching over you come[s] out.”

—CMRFC, guide

Nearly every member of the CMRFC mentioned the difficulty they had keeping track of the frequent in-season changes to regulations. As mentioned in the previous section, the CMRFC relies on tackle shops and marinas to stay up to date on regulation changes. Therefore, marinas and tackle shops monitor management changes and try to understand the reasons behind the changes.

“. . . we’ve been on top of the situation because it is our business. We have to know what the regulations are, what precipitated that regulation in the first place, to try to bring a better understanding between the sportsmen and ODFW.”

—CMRFC, marina representative



The availability of regulations was also considered a problem. Folks interviewed from both the FMC and the CMRFC acknowledged that regulations are not as accessible in inland communities as they are on the coast. Furthermore, those participants coming from inland communities frequently don't get the information they need to participate in the fishery and are mostly likely unaware they are not receiving the information.

Despite negative views regarding regulations, some folks in the CMRFC do acknowledge that the regulations are complicated due to the diversified fishing resource, and a minority of folks interviewed felt the regulations were in place for a reason. The presence and complexity of the regulations most likely will not diminish; however, the FMC could prioritize the communication of regulations, especially in non-coastal areas.

Cultural values and personal attitudes

General values and attitudes toward recreational fishing emerged in interviews with members of the CMRFC. For several folks, the size of catch was not the most important aspect of fishing. Rather, it was that fishing is an important family experience.

"They don't care if they catch one fish or 20 fish, as long as they're together and they know they're goin' fishin'."

—CMRFC, marina representative

"Fishin's supposed to be fun. And somehow or another we need to get back to that, where you're just taking your kids out in an old rowboat."

—CMRFC, marina representative

Some folks stated that it would be nice for the FMC to encourage family fishing experiences.

Personal responsibility

Seventy-six percent of those interviewed within the CMRFC explicitly recognized the responsibility associated with participating in the fishery. This includes taking responsibility for knowing the regulations, and understanding and becoming involved in the management process.

"... people need to be responsible for themselves for learning how a phone works, and ODFW can't be responsive to that. They can't be responsible for people understanding how to use the Internet."

—CMRFC, private angler

"I always think it's my responsibility. I mean, if I want to communicate with somebody, it's not theirs, it's my responsibility to do that. . . . The state doesn't owe us anything."

—CMRFC, private fisher

However, we also heard about segments of the CMRFC that do not take the time to read the regulations, even though it is to their advantage to be aware and become involved.

"And you know, the information's out there, but if they're not gonna look, they're not gonna find it. That's the big one, it's just the . . . they go into it blindly. They can't afford to do that."

—FMC, ODFW staff

Additionally, as the fishery has become increasingly regulated, 9 percent of CMRFC folks interviewed stated that it is the responsibility of people to advocate for themselves both in the management process and at the legislature. However, they also shared that folks often do not carry out this responsibility because they



Photo courtesy of ODFW

do not want to invest the amount of time it requires.

“The average angler is not interested in going to a government meeting.”

—CMRFC, private fisher

“... they’ve got other things on their time and fishing is something they do in their spare time. They don’t take time off from work to go to a . . . meeting.”

—CMRFC, private fisher

“So keeping up is not the ODFW’s responsibility, it’s the people actually, it’s their responsibility. But people don’t take the time to do it. They don’t—it’s absolutely insane. I have to make myself.”

—CMRFC, private fisher

The connection between involvement in the management process and individual perceptions

Another interesting theme that came up in the interviews was the connection between people’s perceptions and their involvement in the management process. Members of the CMRFC varied from no active involvement in the management process to substantial involvement, therefore leading to a diversity of opinions toward the management process.

Nine percent of CMRFC members interviewed characterized themselves and the CMRFC at large as a group of extremely independent individuals. They went on to share that this contributes to perspectives such as: the government is just “in the way,” the government takes a “big brother” approach to recreational fishing, and the FMC does not know how to manage the resource or the

users. One individual even felt that management would not be happy until they saw the end of fishing.

Some folks within this community shared a strong distrust in the politics of the situation and the decisions that emerge from the process. Therefore, it is no surprise that these same individuals feel the FMC continually lies to them. Managers are viewed as being under political pressure and therefore unable to directly answer questions posed by the CMRFC. Consequently, folks within the CMRFC feel it is very difficult to get information from the FMC until a decision has all but been made. One interviewee offered this perspective on how the FMC makes decisions:

“Agencies are notorious for going forward with their rearview mirror. They use backwards looking to go forward and it’s important to stop and think about how things could or might or should be different. Instead of what did we do five years ago, ten years, last year. That status quo is so powerful . . .”

—CMRFC, organization representative

Interestingly enough, other members of the CMRFC expressed encouragement that their involvement in the management process might lead to change. They did share, however, that becoming involved requires overcoming the perception that they—as individuals—are “fighting city hall.”

As those involved in the process have seen an increase in regulations, they are beginning to realize that they have to be flexible in their requests. In other words, they have to learn the game of give and take.

“And if they could just focus on and say, ‘Okay, I’m gonna have to give up this so that we can have this, even though I want it all.’ You know, that’s what they’re gonna have to do. They just don’t, and I think it’s because they’re so new in the process.”

—FMC, ODFW staff

Folks interviewed from the FMC shared that they like to see people attend the meetings they host. It provides them with motivation to continue to hold the meetings, as recognized by this CMRFC interviewee:

“What they like to see is industry taking a part in it. The fact that I go to all these meetings makes it worthwhile to them. If they hold a public meeting and nobody shows up, they are not going to hold these meetings for long; nobody cares. But if people are showing up and voicing their opinions, then it makes them feel that they are doing a job that is important to somebody, and they do a good job of it.”

—CMRFC, charter representative

One possible reason for a lack of involvement amongst the CMRFC is the absence of knowledge about how the fisheries management process works. Interviews pointed out that some members of the CMRFC have opinions and want to share them, but they don’t know how to become involved or how to offer help. Yet many anglers don’t have a strong desire to become involved; they just want to fish. Many talked about how they have jobs and families and don’t have time to get involved in management, despite the benefits it may offer. Given their lack of time to participate and the inconvenience of attending

public meetings, many anglers voice their opinions and complain outside of the management realm.

Some within the CMRFC shared how they have seen the benefits of involvement and are currently working to reverse this trend of non-involvement. These folks contend that if individuals are willing to go fishing, they should be willing to go to a meeting to ensure their fishing’s future. Increasingly, participating members of the CMRFC are attempting to convince their peers that they can make a difference in the management process by paying attention to what is happening and by focusing their preferences at the right time and right place within the management process. Their efforts may be showing signs of success, as some folks shared observations of a trend toward involvement.

“They see it as an important aspect of their heritage, actually. So they’re find[ing] that they need to become involved if they want this to come around for their future generations.”

—FMC, ODFW staff

Almost 20 percent of folks from the CMRFC expressed that management is doing the best it can within its constraints. They recognized that unforeseen events often occur that the FMC cannot plan for. These individuals stated that the FMC works well with the CMRFC and, in the past, it has proven beneficial to work with management agencies. Lastly, some folks within CMRFC said that when they provide input to the FMC, the FMC is often grateful.

Organization and representation within the CMRFC

Most agree that the CMRFC is a broad, diverse group. This begs the question, “Who speaks for this community?” The degree of representation within the CMRFC appears to vary between private fishers and charter businesses.

Charter businesses tend to have more associations to represent them and are motivated economically to organize. Private recreational fishers, considered much more casual than members of charter businesses, are likely to have concurring opinions within the community that could serve as a motivation to organize. However, private fishers lack a common financial incentive to organize. While there are sportfishing organizations that represent the private fisher, some folks felt that it is hard for organizations to know how to reach their constituency. One interviewee was skeptical as to whether organizations adequately represent their members.

“And I think a lot of people diffuse their commitment by joining a group like the Steelheaders or various other groups and expect those groups to carry the [weight] for them. And I’m not sure that they do. I mean they do show up sometimes at meeting[s], they are involved in some, but if you look at the number of people that have invested their \$25 a year or whatever into the organization, I’m not sure they’re getting their [representation].”

—CMRFC, private fisher

Overview of communication methods and their impacts on relationships

Our study revealed that there are several methods of communication used between and within the FMC and the CMRFC. The increased reliance on electronic forms of communication, such as e-mail and the Internet, has presented new and innovative ways of communicating.

Folks interviewed from the CMRFC shared preferences for informal means of communication, such as word of mouth and, increasingly, e-mail and Internet chat boards. This has implications for what methods the FMC could use to reach the CMRFC. This section describes currently used communication methods as well as potential new methods of communication.

Face-to-face communication

INFORMAL

Looking first at the FMC, informal communication frequently occurs amongst staff members of the same office; however, informal face-to-face communication between agencies is often lacking. Primary reasons for the decrease in face-to-face communication are time and budget constraints, and consequently there is an increased reliance on electronic methods.

Informal communication is common within the CMRFC and generally occurs while on the docks or during fishing trips. The act of fishing presents the opportunity for folks to get to know one another, learn about regulations, and gain a perspective of others' opinions. A majority of interviewees from the CMRFC cited word-of-mouth as a common and effective form of communication. They also said that communication takes place face-to-face at meetings. Meetings within the CMRFC typically include informal meetings with fellow fishers to discuss fishing conditions, prime fishing locations, and management issues.

More-formal meetings held by fishing organizations also occur within the CMRFC. For example, the Oregon Coast Sport Fishing Association (formerly the Charter Boat Association) meets once a year to discuss management issues and assess the CMRFC's preferred management choices. Other organizations, such as the Recreational Fishing Alliance (RFA), sometimes host sportfishing events where community members can interact. However, interviewees mentioned this form of communication infrequently.

Informal communication is occurring regularly within communities,

Method	Suggested Improvement
<p>FACE-TO-FACE</p> <p>Informal: Occurs primarily <i>within</i> communities</p> <p>Semi-formal: CMRFC → Tackle shops and marinas CMRFC → ODFW fish checkers</p> <p>Formal: ODFW and PFMC public meetings</p>	<p>Increase between communities</p> <p>FMC: Better educate fish checkers</p> <p>FMC: Make meetings accessible, understandable, and comfortable; provide information on how to participate; hold meetings describing management rationale</p> <p>CMRFC: Attend meetings; express opinions and potential solutions</p>
<p>WRITTEN</p> <p>Newsletters: Produced by marinas, tackle shops, fishing organizations, management agencies</p> <p>Letters: Public letters to the PFMC</p> <p>Flyers: Provide notification to the public regarding management meetings and decisions</p> <p>Brochures: Tool used by management agencies to distribute information</p> <p>Regulation booklet: Prepared by ODFW, detailing fishing seasons and regulations</p> <p>Newspapers: Effective method to distribute fishing announcements to a diverse constituent group</p>	<p>CMRFC: Sign up to be on mailing lists</p> <p>FMC: Distribute on time; make them clear and understandable (avoid the use of jargon)</p> <p>FMC: Work more closely with newspapers to print updates and to ensure accuracy</p>
<p>ELECTRONIC</p> <p>E-mail: Occurs primarily within communities</p> <p>Web sites: Tool used to disburse fishing and management information; utilized by management agencies, fishing organizations, and state Extension offices</p> <p>Chat boards: Development of I-fish.net; primarily used by CMRFC members</p> <p>Telephones: Infrequent form of communication between communities</p>	<p>FMC: Attempt to respond to e-mails</p> <p>FMC: Ensure that Web sites are user-friendly and up-to-date</p> <p>CMRFC: Utilize for effective communication</p> <p>FMC: Monitor and participate in conversations</p> <p>FMC: Make efforts to invite constituents to call if they have questions</p> <p>CMRFC: Utilize this method more</p>
<p>RADIO</p> <p>Boat radios: Used by the CMRFC to communicate on the water</p> <p>Radio stations: Effective method to distribute fishing announcements to a diverse constituent group</p>	<p>FMC: Make attempts to work with stations to make public service announcements at a reasonable cost</p>

Table 3. Utilized Communication Methods and Suggested Improvements. Used with permission.

but it is rare between communities. Folks interviewed from the CMRFC expressed a desire to have greater access to opportunities to informally communicate with fisheries managers.

Lastly, CMRFC organizers of I-fish-sponsored events have cited the desire to see members of the FMC attend. This could serve as an excellent way for the FMC to reach the CMRFC informally.

“Well, when we put these things [I-fish events] together, there’s also an opportunity, you know, there’s an audience there. We meet with the Coast Guard to talk about safety. So there’s an opportunity if someone from the PFMC, from one of these subcommit-

“But I think just like private sport-fishers would find that those guys [FMC] don’t bite and they’re not so bad after all. I think once they got together, they [FMC] [would] realize most [of] these private sport-fishers are pretty cool and want to help.”
—CMRFC, private fisher

Folks also suggested that if PFMC members could make a connection with members of the CMRFC, it could change the community’s perception of management agencies. They shared how by forming a connection they would not be viewed as “faceless bureaucrats.” They also stated that forming such a connection would be the most beneficial early in the management process.

Folks also suggested that if PFMC members could make a connection with members of the CMRFC, it could change the community’s perception of management agencies. They shared how by forming a connection they would not be viewed as “faceless bureaucrats.”

tees wanted to come to that group and say, ‘Hi, I’m [so and so] and I’m the head of [such and such] committee,’ you know, whatever, ‘and I just want to introduce myself and tell you what it is that we do and if any of you [have any questions].’ You know, just showing up. If there was a willingness to do that, it would be huge. And we can set those kind of things up, but maybe it’s—I don’t know, if it’s whoever who makes the first move, I’m not sure how these things work.”
—CMRFC, private fisher

SEMI-FORMAL

Folks from the CMRFC emphasized the importance of engaging frequently in face-to-face communication with marinas and tackle shops, particularly to get up-to-date information about regulation changes. Every tackle shop and marina representative interviewed mentioned the degree to which the CMRFC relies on them as a source of information.

“I have customers, most of my day-to-day guys, they’re my friends. And

I treat it that way. It’s not a customer relationship. It’s a friend relationship. I’m here to help you, what do you need, get you the best price, and get you what you need. And so they [CMRFC] come to us because I pay attention to what’s goin’ on, or try to. And we discuss things. So we try to be on the forefront of what’s really happening and be positive . . .”
—CMRFC, tackle shop representative

“Always. Always. Yeah. That is—they’ve learned over the years, at least most of them, that if there is a question that we’re the ones to talk to.”
—CMRFC, marina representative

Tackle shops and other folks from the CMRFC have recognized that they are partners in recreational fishing and can help each other.

Folks interviewed within the CMRFC shared that they frequently engage in face-to-face communication with ODFW fish-checkers on the docks. During these interactions, folks frequently express their frustrations to the checkers rather than expressing them at meetings where managers are present. When fish checkers are unable to answer a question, which is common, they are viewed as unknowledgeable.

“For example, the people that are our dock samplers, which are usually just people in school or recently out of school, not really that knowledgeable in the management process, but they’re the people that most the anglers see and interact with. They’re quick to express their frustrations to them. But relatively few are willing to go beyond that. I’ll get some letters or phone calls, but very few seem to be motivated to show up to public



meetings and actually get involved to learn what's the process and how do I best get my input. For those that do, I think it's very educational. People who become involved over a matter of time really get to understand what's going on and why it's going on, and often it changes their views."
—FMC, ODFW staff

Some folks shared that better equipping fish checkers with general management information could improve the image of ODFW. This is because to some folks within the CMRFC, fish checkers "are the ODFW," therefore their opinions and knowledge represent ODFW.

FORMAL

Formal face-to-face communication occurs at fisheries management meetings held by ODFW and the PFMC. ODFW typically will hold a series of public meetings to obtain public comment when management issues arise. Many CMRFC folks said that when they do communicate with

ODFW at these meetings, ODFW listens and they are pleased to hear from them.

"I feel like, via e-mail and in these recent spat of meetings, that I have a pretty good line into the ODFW to actually talk to some people there who want to listen to what people who fish have to say."

—CMRFC, private fisher

"... it actually, it does work. If you are in the right place in the right time and you have constructive ideas. Because, the thing that most people forget, and I even forget sometimes, they're just people too. And they're not the smartest people in the world, they're just the ones that got chose to be the ones to make the decisions."

—CMRFC, marina representative

As members of the CMRFC begin to take involvement in the management process more seriously, the attendance at these meetings has started to increase, demonstrating to ODFW the size and degree of interest within the community.

"... we started talking to them [ODFW] about our feelings on the subject, getting a little bit more organized with our thoughts, instead of being negative—we don't like this. Presenting positive solutions. And so they could help us, so we could help them help us. And what I found was that they were very, very open to hearing from us. They hadn't heard from us traditionally but they were actually very pleased that we took the time to come forward and speak to them and talk to them in a positive and constructive manner."

—CMRFC, private fisher

However, some folks interviewed within the CMRFC felt that ODFW meetings are held only because managers are required to hold them, and their suggestions are not heard. Some stated that they have communicated a desire to help in data collection, but nothing has materialized from their offers.

ODFW tries hard to hold meetings all along the coast in order to explain options for management plans. One member of ODFW stated that after each meeting they sort through all the comments they received and determine the most popular ideas and comments. ODFW feels that it is beneficial to hold these meetings to hear the viewpoints of those involved; however, attendance by private anglers is often quite low. ODFW does listen to the CMRFC at meetings, but even a member of the CMRFC recognized,

"... [the CMRFC is] heard but their ideas can be a little far out sometimes. [Their ideas] may not work in the management scheme of the agency and therefore they are not implemented. And then it goes back to [the CMRFC], saying 'we sat there, we told you [FMC] what we thought; our ideas are not being implemented, so I am out of this discussion.' So if [CMRFC] ideas don't get implemented, then they [CMRFC] are saying they are not being heard."

—CMRFC, guide

Unfortunately, as with many groups, the same individuals attend each FMC meeting, limiting the diversity of opinions communicated. All members of the CMRFC interviewed identified two reasons for the lack

of attendance at meetings: (1) a lack of awareness of when and where the meetings are held, and/or (2) the travel distance required to attend.

A few folks shared that they did not attend meetings because they can't comment on what they don't understand. In other words, the process of fisheries management has become so complex that they are unable to keep up with it.

Recently, ODFW established a sportfish advisory panel consisting of about 15 representatives of the CMRFC. ODFW will consult with the advisory panel to obtain a general idea of how the sportfishing community feels about management issues.

At the federal level, the PFMC also holds meetings where members of the CMRFC can communicate with the FMC. Formal council meetings are held five times a year, but they are typically not well attended by members of the CMRFC.

There are several reasons why members of the CMRFC attend these formal meetings infrequently. First, the language used and procedure followed during the meetings is very formal and not considered the best communication tool.

“... it takes a long time to learn to understand what they are saying. They speak in acronyms that—if you were to go there, you sit there and you just have a blank look on your face, because you have no idea what they are talking about or what they are saying. So even these meetings that are open to the public, they are not. Most of the public would not be able to participate, because they wouldn't have a clue what was being said. So

that is a definite communication breakdown between the recreational fisheries and management.”
—CMRFC, charter representative

Members must attend several meetings before they can understand the jargon and procedure. Second, the formal procedure intimidates some members of the CMRFC. Confusion over how to participate in the process has resulted in CMRFC members providing input at the wrong time



in the wrong way. Third, the large, formal meetings are held in big cities in Oregon, California, and Washington—typically inconvenient locations for CMRFC members to travel to. The FMC acknowledges the inconvenience but claims that only bigger cities offer the accommodations needed for large-scale meetings.

Last, due to dual management between ODFW and the PFMC, some CMRFC members view the PFMC primarily as a manager of commercial fisheries. If members of the community were better educated about the management process, they may have more incentive to

participate in PFMC meetings and activities. However, members of the CMRFC who have provided testimony at PFMC meetings have found themselves to be more effective when they offer a potential solution for the problem they present. Based on the past experiences of some CMRFC members, the community is learning that yelling and complaining is not an effective way to get their point across to management. One member of the FMC described some ways for the CMRFC to communicate with the PFMC.

“They can show up and give public testimony that's better, you see a face and you have a story to go with it. And when they give public testimony, if they say 'I want more fish' or 'I don't like that,' and let's say they give testimony and they give a very compelling case that there is a problem that needs to be addressed, but they don't offer a solution at the same time. A solution that a council member could take right in that moment and do something with, then there is a good chance that it will get dropped. It is more likely that nothing will happen. If when they give testimony they can give a solution, and the solution or the action that they want out of that meeting and specifically what it is. And it doesn't have to be a final answer. Say for instance I want you to establish a committee to look at that or I want that issue to be referred to the SSC [Scientific and Statistical Committee], etc. The specific, small next step that the council member could actually do as well as maybe in some cases the end policy on it. Then the council member, because sometimes I have seen people go up and make a compelling statement, but then the council members are left on the fly

with how to respond and they got other issues they are trying to deal with on the same agenda item, and it is easy to drop.”

—FMC, PFMC staff

Some members of the FMC consider PFMC meetings an effective form of communication if those participating know how the process works. Therefore, these FMC members cited attending PFMC meetings as the best way for the CMRFC to communicate with council members. However, several members of the FMC recognized the shortcomings of PFMC meetings as an effective communication tool:

“Not necessarily, not for the common person. For the person that’s engaged in the council and understands the council processes and how to access the council, I think it’s effective, but you’d have to be pretty well versed in the council activities and how it’s structured and be pretty well plugged in. For somebody to just come in off the street and access the council, I don’t think it’s a very effective communication tool. But then, I don’t think that’s what the council was set up to do.”

—FMC, PFMC member

The FMC can also communicate with the CMRFC during advisory body meetings. As mentioned previously, communication within the sub-panel can occur more freely than in the formal PFMC meetings. This is beneficial because both the FMC and the CMRFC can freely exchange ideas, and therefore better understand each other’s ideas and opinions.

“I get a lot of info out of . . . advisory panel meetings . . . sitting and listening to what the fishermen concerns are and hearing their stories of what

is going on, and also in sidebar discussions during breaks. People will approach others about what they heard during the meetings.”

—FMC, PFMC staff

However, there are two drawbacks to this form of communication. The first, identified by the FMC, is the difficulty of getting private, recreational fishers to serve on the panels.

... when meetings concern a topic that is hotly debated, one CMRFC member recommended that the FMC use a neutral moderator. This could help ensure that multiple voices are heard, rather than just a few.

Serving on a panel often requires traveling, a substantial amount of time, and dedication. Second, as one member of the CMRFC pointed out, the panels have created an “old boy network.”

“I got very, very disgusted with the whole situation because there is so much old boy network goin’ on there that it is really, really hard to make any significant change in anything.”

—CMRFC, marina representative

The advisory bodies of the PFMC at times hold public forums in local areas, generally along the coast, to obtain public comment. The CMRFC is much more likely to attend these meetings because the smaller meetings offer a less intimidating way for the CMRFC to communicate with the FMC. Some members of the CMRFC felt that these meetings should also be held in non-coastal towns, to reach a greater propor-

tion of the CMRFC. Furthermore, members of the CMRFC can serve on these sub-panels as representatives of the sportfishing community. However, as with the formal meetings, representatives have stated that it takes a long time and a lot of commitment to understand the process and the jargon used in any level of the management process.

Members of the CMRFC offered several suggestions for improving FMC meetings. For example, when meetings concern a topic that is hotly debated, one CMRFC member recommended that the FMC use a neutral moderator. This could help ensure that multiple voices are heard, rather than just a few.

As an alternative to long-distance meetings, one CMRFC member suggested that the FMC send out questionnaires to fishers. CMRFC members also suggested that holding meetings in neutral locations and incorporating educational fishing information into the meeting could improve attendance. Sportfishing shows were cited as a great opportunity to reach the CMRFC.

Some members of the CMRFC stated that they would like to see ODFW hold meetings in which they explain their overall management rationale.

A majority of CMRFC interviewees said that fisheries management agencies should exhibit greater consistency in their decisions and should explain the background and motivation for their decisions. Other members of the CMRFC would like to see more regular meetings to update anglers on how the season is progressing. These regular meetings could also serve to obtain feedback on how management decisions have affected the community.

One CMRFC member suggested that communication could be improved by writing a certain amount of outreach into FMC employees' job descriptions. However, managers are not typically trained in how to effectively communicate with the public.

"If you are going to serve your customer, you need to understand your customer and help them know what they need to know, and I think that not all agencies embrace that philosophy, and sadly, those who do end up having their budget cut in the state capital or federal. So it is a very tough place to be, and you need the right leadership to do it."
—CMRFC, organization representative

From the FMC's perspective, meetings are an important way to communicate with the CMRFC.

"I think it's [FMC meetings] an effective way for them [FMC] to be reached by people. I don't think it's a good communication method [to reach the CMRFC], because not enough people can attend."
—CMRFC, private fisher

Other methods of face-to-face communication include presenta-

tions at tackle shops and booths at sportsperson's shows. Interaction is one positive aspect of this type of communication, but

"... this can be very time consuming and it is hard to measure how much benefit you are getting."
—FMC, OR state police

The written word— newsletters, reports, flyers, brochures, and newspapers

Written communication is the most common way the FMC provides information to the CMRFC, and it can be especially efficient when communicating with audiences far away. However, written communication is slow and is more effective for conveying long-term changes to the fishery than for notification of in-season regulation changes.

NEWSLETTERS

Newsletters are commonly used to communicate to the CMRFC. For example, tackle shops and marinas have developed newsletters with important fishing information to share with the CMRFC. Fishing organizations such as the RFA distribute written information to constituents.

The PFMC's newsletter is its main written outreach tool. However, individuals on the mailing list are typically already involved in the management process. To reach a wider audience, the PFMC has begun distributing its newsletter to tackle shops along the coast.

"We've been sending the newsletter to fishing (community), like tackle shops up and down the coast. Only about 20

up and down the coast . . ."
—FMC, PFMC staff member

"Their little newsletter is doing very well."
—CMRFC, tackle shop representative

LETTERS

Although the PFMC does accept written comments from the public regarding management decisions, letter writing was mentioned only twice as a method the CMRFC uses to reach the FMC. The CMRFC appears unwilling to write letters to the FMC because they view it as an ineffective way to reach management. Folks from the FMC agreed, stating that letter writing is the least-effective form of communication.

REGULATION BOOKLETS AND FLYERS

This form of written communication is used to notify and inform stakeholders about regulations and meetings. For example, ODFW mails notices of events and management decisions; however, some CMRFC members receive these notices after the fact. This can lead to recreational fishing with inadequate information on regulations, missing management meetings, and the fostering of mistrust within the CMRFC.

ODFW distributes its informational brochures to marinas, sporting goods stores, and tackle shops to aid in reaching the CMRFC. While it is good to have brochures available in several locations, frequently the folks distributing the information—specifically those in large sporting goods stores—are unaware of regulations and therefore unable to

answer questions. Furthermore, if the brochures are too lengthy and complicated, they are often not read. Due to budget constraints, however, ODFW must squeeze a lot of information into each brochure.

Flyers often serve as an effective way to provide notice of short-term regulation changes, and they can be posted at affected locations. Flyers regarding regulation changes are also distributed to marinas and tackle shops. This form of notice can be especially useful for members of the CMRFC traveling to fishing locations from other parts of the state. However, one drawback to flyers, according to CMRFC interviewees, is their tendency not to be maintained and updated.

Flyers are also used to notify stakeholders of upcoming management meetings. In order for the flyers to be most effective, the FMC needs to make sure they are clear and jargon-free. Members of both the FMC and the CMRFC cited examples of individuals being confused by FMC flyers and attending the wrong meeting.

Once a year, the state also publishes a booklet containing regulations approved by the ODFW Commission. The booklet includes information about fish identification, safety considerations, and instructions for releasing fish. A majority of the CMRFC interviewees indicated that the booklet adequately provides the information they need (other than in-season changes).

“We do informational fish identification cards; for example, we’re always posting signs at the docks. Changes

to regulations. If you spend any time looking through regulation booklets we have, here’s a page of key species and how you tell them apart, and here’s ways of avoiding mortality techniques for release, for example. We have the brochures that are informational in terms of here’s sites where you can fish from shore and here’s examples of how you tie your lures, and the life history.”

—FMC, ODFW staff

NEWSPAPERS

Interviewees agreed widely that written media are an important way to reach the CMRFC. In some cases, staff from tackle shops and marinas write columns in local newspapers to update the CMRFC on management changes. Additionally, one CMRFC interviewee mentioned getting articles published in sportfishing magazines as a way to reach widespread audiences like the CMRFC.

The news media could be utilized by the FMC as a tool to get the word out to the CMRFC. Frequently, coastal newspapers cover local fisheries management meetings or are asked by the FMC to publish regulation changes. This is effective because it has the ability to reach both local and distant audiences, especially those who do not attend meetings. Members of the CMRFC stated that ODFW did a good job of getting information to the news media quickly.

There are, however, some drawbacks to using the newspaper as a communication method. First, the newspaper editor decides which stories to print, based on preference and available space. Second, a majority of folks interviewed from both the FMC

and CMRFC stated that printed stories are often inaccurate, resulting in misleading information. This is a problem because it can foster continued confusion within the CMRFC and false perceptions of the FMC. To improve this situation, several CMRFC interviewees suggested that the FMC try to work more closely with newspaper editors, to review material before it is printed.

Electronic methods

The increased use of electronic communication methods has transformed how communication occurs both within and between these communities.

E-MAIL AND INTERNET

Every member of the FMC interviewed identified e-mail as a primary method of communication within their community.

“I would say the primary method of communication, at least with my agency, is through e-mail. It seems to be probably the standard, although there’s a lot of phone calls if you need more substance or if people aren’t very good [at the computer].”

—FMC, ODFW staff

“Meetings, e-mail, telephone, and in-house communication. As technology has changed, it used to be a lot of telephone calls, which took a lot of time. When faxes came in, it decreased time, and now I hardly use a fax machine and only call people in exceptional circumstances.”

—FMC, PFMC staff

Reliance on e-mail may decrease face-to-face communications, espe-

cially between agencies. Although it is faster than traveling to other agencies for face-to-face meetings, electronic communication is also more vulnerable to misunderstandings between correspondents. Nevertheless, because of its speed it is often preferred by management agency staff.

The CMRFC also considers electronic communication important and uses it frequently. Over three-quarters (76 percent) of CMRFC interviewees cited e-mail as a primary way to stay in touch with fellow fishers and to discuss regulations and fishing conditions.

Members of the CMRFC also use e-mail to reach both ODFW and the PFMC. However, members of the CMRFC were more likely to e-mail ODFW than the PFMC. This is mostly due to CMRFC members' unfamiliarity with the PFMC and not knowing whom to contact. Many fishers expressed satisfaction with the quick response they receive by e-mail from some members of the ODFW Marine Program. For example, ODFW has

"... been really good about getting back. I'm impressed, as a matter of fact, with the length of the e-mail that he sends back with all the points to consider... it is very thoughtful and insightful and he's always gotten back to me. On a personal basis, I'm just impressed with that. I may disagree with him, but the fact that he takes the time to do that is pretty good."
—CMRFC, private fisher

The topic of e-mails generally concerns updates on catch rates (status of the quota) and questions

surrounding regulations. Within the CMRFC, a few members have been encouraging other members to e-mail the department; however, they are afraid of overwhelming the department and having their e-mails disregarded. Other members said the FMC had not responded to their e-mails. These individuals suggested that the FMC at least employ an automatic response system.

The FMC has established e-mail listserves to reach the CMRFC. Listserves are a good way to communicate to those CMRFC members who have access to computers. Further, it is an inexpensive and quick method of communication. ODFW has both general and Marine Program listserves. Several CMRFC members cited the Marine Program listserve as difficult to subscribe to, and suggested that it be combined with the main ODFW listserve, because all the issues are important and having everything on one listserv would end confusion regarding subscribing.

A member of the CMRFC also suggested that ODFW more frequently solicit recreational fishers for e-mail addresses. Recently, ODFW has been requesting e-mail addresses from meeting attendees and is developing a new e-mail listserv. Another CMRFC member suggested that an e-mail network be developed that could serve as an action-alert network to notify people of events and regulation changes. Another CMRFC suggestion was to develop listserves for particular species of interest. This idea stems from the fact that some marine fishers focus specifically on one species. However,

such listserves could potentially fragment information even more. Despite the benefits offered by electronic forms of communication, there is an important barrier:

"There is the problem, of course, of reaching the fishers that aren't Internet people, that are not at computers. They don't want to do e-mail, they don't [know]—how do you get those people? And that's a tough one, you know, how do you communicate with folks that are unreachable?"
—CMRFC, private fisher

A segment of CMRFC folks indicated that they rely on an Internet chat board called I-fish.net to communicate with other members. Over a third (38 percent) of CMRFC interviewees cited I-fish as their primary mode of internal communication. The chat board offers a convenient way for members to stay in touch, discuss fisheries management issues, and learn of in-season changes and management meeting locations and times. Members of the CMRFC have jobs and families, meaning busy schedules, and I-fish allows them the opportunity to communicate and stay up-to-date at their own convenience. Also, the ability to remain anonymous affords a comfortable environment in which to share opinions.

A segment of the chat board specifically geared to marine fisheries, called the Salty Dogs, has between 100 and 150 subscribers (in 2004). However, numerous other members of the CMRFC visit the site and monitor conversations, demonstrating the importance of this method of communication.

“... it’s also a great communication tool. And for communicating both ways, really. You have a lot of officials that are members of it.”

—CMRFC, private fisher

One drawback to I-fish is that some members use it as a forum to complain about management decisions, and therefore do not become involved in the management process (i.e., attend meetings). One member of the CMRFC stated that what the group lacks is a leader to provide momentum for becoming actively involved. While the Salty Dog component is making progress by getting organized and motivated, progress is frequently slow. However, a network is developing within the larger sport-fishing community as well. The I-fish chat board, specifically the marine component, has reached a sizable number due to the convenience it offers to CMRFC members. As this group becomes more organized, a unified voice may emerge that will articulate to the FMC its management preferences.

The I-fish chat board also sometimes serves as a method of communication between the CMRFC and the

FMC. Several members of the FMC said they know of the chat board and occasionally monitor conversations. Some CMRFC members stated that they have received messages from management in response to their postings on I-fish. However, I-fish chatters are anonymous, so there is no way to determine whether managers are part of the conversations. One CMRFC member suggested that the FMC establish its own Internet discussion board.

“So if there is anything that I can see that would, I think, improve some of the communications between sport fishers and the marine resources folks in specific would be to have them set up a chat board or Internet discussion board, where anglers could go and post a question and provide feedback, and ODFW could interact with the public more readily.”

—CMRFC, private fisher

WEB SITES

The FMC uses Web sites frequently to post updates concerning management issues. Almost all (95 percent) of CMRFC interviewees cited Web sites dedicated to recreational

fishing as an efficient means of disseminating information. The PFMC operates a Web site that lists council members and staff, describes council duties, discusses management decisions, and covers several other topics. Throughout the interviews, CMRFC members spoke very highly about the PFMC Web site. They felt that it was user-friendly and a good medium to post meeting summaries and regulation changes. One member of the CMRFC could not say enough to compliment the PFMC Web site:

“... the PMFC Web site is—it’s great, it’s really good. Ah, they’re always publishing what they’re doing and all that kind of stuff, and so on. But I read that, I take time to read it. . . . I really gotta compliment though, just one more time, the Pacific Fisheries Management Web site. It’s a really good Web site.”

—CMRFC, private fisher

The ODFW Marine Program also operates a Web site, posting information relevant to the CMRFC such as monthly catch data for species of concern, updates on commission decisions, and changes in regulations. ODFW was praised for quickly



www.ifish.net



www.dfw.state.or.us/resources/fishing/

posting regulation changes during the season. Although CMRFC members praised ODFW's site for the amount of information available, they mentioned frequently that the site is "difficult to navigate." Many CMRFC interviewees found the site's information out of date and the data difficult to access. The CMRFC would like a user-friendly ODFW Web site with easy access to data.

ODFW has also conducted Web surveys of the CMRFC, which managers found to be helpful. However, this was done only on a limited basis because ODFW lacks an experienced survey writer. This is unfortunate because additional surveys could lead to a better understanding of the CMRFC community.

TELEPHONES

CMRFC interviewees said they rarely use the telephone to reach either the PFMC or ODFW, primarily because they don't know whom to contact and they feel uncomfortable calling. However, the phone is generally the best way to get a quick response from managers. Furthermore, ODFW has established an 800 number that the public can call to have their questions answered.

"I don't know how to get to 'em. I don't know how to get to a person on the Pacific Fish Management Council. That could be effective for us. I would like to have four, five names that I could—have a conference call with 'em or whatever. Or sit down with them or whatever."

—CMRFC, charter representative

The FMC does not frequently use the phone to reach the CMRFC. The

PFMC sometimes holds conference calls with the various sub-panels, which sometimes include members of the CMRFC. Those who mentioned these conference calls felt they were often a success. However, when scheduling such calls, it is important that the FMC take into consideration when CMRFC members are on the water.

Another potential use of the phone CMRFC interviewees mentioned was the forming of a telephone network to conduct mass calls when there is a substantial change in regulations.

Radio

BOAT RADIO

Fishers are often reluctant to use their boat radio to ask questions about regulations. However, with the increase in the number and complexity of regulations, fishers are becoming less embarrassed to ask others for clarification. CMRFC members revealed that more and more, while on the water, they use their boat radios to ask others questions about regulations.

RADIO STATIONS

Public radio can also be used to disburse information to the CMRFC. Public service announcements are a good method to reach folks because they are generally free and can reach a large audience, especially those who do not attend meetings. Radio shows that address recreational fishing issues have proven an informative, positive method of communication. In some ports in Oregon and across the country, Extension educators participate in radio shows that ad-

dress regulations, in-season changes, fishing effort, and several other topics related to marine fishing.

"The recreational fishermen have been part of my audience. I am doing a radio program tonight as an example. Live radio, which we do every week, and that gives me a chance to address recreational interests . . . Live radio is good because people don't come to meetings like they used to."

—Other, Oregon Sea Grant
Extension agent

Folks from both communities suggested increasing the use of all forms of communication to expedite information sharing. FMC interviewees acknowledged the potential benefits of television advertising in reaching diverse audiences such as the CMRFC; however, such ads are very expensive to produce and broadcast. With FMC's budget constraints, this form of communication is unlikely but still needs to be explored.

Conclusion

There are numerous dimensions to communication within and between these two communities. Despite the challenges associated with studying communication, insights and themes from this study help to form a broad understanding of the current relationship and state of communication between the CMRFC and the FMC.

Overall, members interviewed from the FMC described the CMRFC as an important stakeholder group—one with a diverse set of preferences, little active involvement in the management process, and large geographic distribution. The FMC, within their constraints, shared that they do their best to get the word out. They also felt that it is the CMRFC’s responsibility to seek out the information. They agreed that the current management structure, which is complex and inflexible, contributes to the CMRFC’s lack of involvement. Given that the structure is mandated through policy (the Metropolitan Statistical Area), there is, however, little chance of restructuring the process. Rather, change will be achieved by taking an optimistic approach toward making effective communication a priority within and between communities. Currently, communication is not prioritized within management agencies, but the necessity of following through with

this recommendation was identified by both communities.

From our interviews, members of the CMRFC appear to be, on the whole, much more divided in their opinions about the state of communication. Their attitudes toward the FMC and its communication efforts ranged from very negative to positive, depending on the level of involvement in the management process. A minority of CMRFC interviewees (none of whom were involved in the management process) held very negative views of the FMC; their statements included stereotypical comments about government agencies and a view that the FMC had no idea of the status of fish stocks. These interviewees painted a picture of the CMRFC as an independent group of people who are continually having their right to fish taken away and facing more and more regulations. Other negative comments originated from those who had some level of involvement in the management process but were frustrated with its inflexible structure; in some cases, this led to discontinuing their involvement.

On the other hand, CMRFC folks who were involved in the management process (e.g., they communicated with the FMC and attended meetings) acknowledged its shortcomings while offering positive comments. Positive comments



centered on FMC's significant efforts, given its constraints. Furthermore, members of the CMRFC who became involved in the management process found that their efforts could result in change. It is important to note that, despite the differences within the CMRFC, there is general frustration with the number and complexity of regulations placed on the community.

Results of this study suggest that the level of involvement in fisheries management appears to correlate with CMRFC members' attitudes toward the FMC. One observation is that effective communication is occurring, because folks involved in the management process made positive comments about the relationship and state of communication between the two communities. These same folks also stated that their involvement in the management process did produce change, indicating the occurrence of effective public involvement. These observations seem to contradict statements made by other members that public meetings are held only "to fulfill a requirement" and that the FMC would like to see "the end of fishing." Considering this, one might conclude that it is vital for members of the FMC and the CMRFC to work at fostering the perception that involvement by the CMRFC can make a difference in the management process.

Another insight from this study is that the CMRFC is becoming increasingly organized. The motivation for this increased organization is two-fold. First, as the CMRFC faces new regulations, members are realizing that they need to become involved and develop a common voice. Second, use of the

Internet—and specifically the I-fish network—has provided a convenient method for members to communicate.

Research has shown that a key element in communication is the feedback loop—it must be two-way, not one-way. Currently, effective communication is not happening if the FMC's outreach material is designed only to reach the CMRFC, with no mechanism in place for the CMRFC to respond. This study shows that positive views within the CMRFC, and the desire to interact more on a face-to-face basis with the FMC, might encourage the FMC to address this desire and thereby build and maintain the CMRFC's respect. This coincides with the CMRFC's desire to provide feedback to the FMC. Designing in the ability to provide feedback, regardless of the chosen communication method, could be very beneficial.

Previous studies have acknowledged that achieving effective communication is a joint responsibility of both communities (Walker and Daniels 1997). In our study, folks interviewed from both communities made suggestions for improving communication, some of which fit into the current regulatory structures and others that do not. Two suggested improvements for the FMC include training current and future management employees in how to conduct public involvement programs, and providing more staff and a larger budget devoted to outreach. Primary ways the CMRFC can improve communication efforts are by developing an open (and eventually positive) attitude toward the management process and becoming educated on how to effectively become involved in management.

Our study revealed that both communities are making first steps toward improving communication. However, the depth of the underlying cultural differences and mistrust highlight the need to address these social communication barriers before significant improvements in communication can be made. Some of the barriers between these two communities are complex and embroiled in past negative experiences and will take time to resolve. However, throughout our interviews, we continually heard each individual's genuine concern for the future of the resource.

This study was a small yet successful exploration of communication within and between the CMRFC and FMC, and it provides a better understanding of this under-studied stakeholder group. Insights from the study show the CMRFC's passion for recreational fishing, a strong desire for more data and scientific information, and the group's increasing prominence as a vocal stakeholder in fisheries management.

Our study also found similar desires in the commercial fishing community, the most obvious being that the CMRFC finds the management process complex and inflexible. Yet the communication methods used to reach the CMRFC might need to be more innovative and varied (than those used to reach the commercial fishing community), because of organizational differences between the CMRFC and the commercial fishing community.

References

- Barber, W. E. and J. N. Taylor. 1990. The importance of goals, objectives, and values in the fisheries management process and organization: A review. *North American Fisheries Management* 10(4):365–373.
- Berg, B. L. 2001. *Qualitative research methods for the social sciences*. Allyn and Bacon Publishing, Boston, MA.
- Brown, T. L. 1996. Reservoir fisheries and agency communication. *American Fisheries Society Symposium* 16:31–37.
- Cassel, C. and G. Symon. 1994. *Qualitative methods in organizational research: A practical guide*. Sage Publications, London/Thousand Oaks.
- Collier, M. J. 1995. Dialogue and diversity: Communication across groups. In D. Harris, ed. *Multiculturalism from the margins, non-dominant voices on difference and diversity*. Bergin & Garvey, Westport, CT.
- Conway, F. D. L., L. Cramer, G. Goblirsch, and J. Bergeron. 1999. Inter-community communication: Capacity building in fishing family business, residential, and fisheries management communities. Grant proposal for *Oregon Sea Grant Omnibus 2000–2002*. Corvallis, OR.
- Conway, F. D. L., J. Gilden, and A. Zvonkovic. 2002. Changing communication and roles: Innovations in Oregon are fishing families, communities, and management. *Fisheries* 27(10):20–29.
- Dawson, C. P. and B. T. Wilkins. 1980. Social considerations associated with marine recreational fishing under FCMA. *Marine Fisheries Review* 42:12–17.
- _____. 1981. Motivations of New York and Virginia marine boat anglers and their preferences for potential fishing constraints. *North American Journal of Fisheries Management* 1:151–158.
- Dean, J. 1996. The role of angler organizations in fisheries management. *American Fisheries Society Symposium* 16:172–175.
- Gilden, J. and F. D. L. Conway. 2002. *An investment in trust: Communication in the commercial fishing and fisheries management communities*. Publication ORESU-G-01-004. Oregon Sea Grant, Corvallis.
- Henning, D. H. 1987. Wilderness politics: Public participation and values. *Environmental Management* 11:283–293.
- National Marine Fisheries Service (NMFS) and National Sea Grant College Program (NSGCP) 2000. *RecFish 2000: Managing marine recreational fisheries in the 21st century. Meeting the needs of managers, anglers, and industry*. Publication from the conference, June 25–28, 2000. California Sea Grant, La Jolla, CA. Available at <http://www.nmfs.noaa.gov/irf/RecFish2000.pdf>.
- PFMC (Pacific Fishery Management Council). 2003. *Final environmental impacts statement for the proposed groundfish acceptable biological catch and optimum yield specifications and management measures: 2003 Pacific Coast Groundfish Fishery*. PFMC, Portland, OR. Available at <http://www.pfcouncil.org/groundfish/gfother/eis0103.html>.
- _____. 2003. *Information sheet: Getting involved*. PFMC, Portland, OR.
- Radomski, P. J., G. C. Grant, P. C. Jacobson, and M. F. Cook. 2001. Visions for recreational fisheries regulations. *Fisheries*. 26(5):7–18.

Acknowledgments

The authors would like to thank the participants in this study for their thoughtful participation in the survey and for sharing their experiences and perceptions with us. We would also like to thank Oregon Sea Grant for its support of this project.



Oregon Sea Grant
Corvallis, OR

<http://seagrants.oregonstate.edu>
phone: 541-737-2716

ORESUG-07-005