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9. ABSTRACT

In general, the Panamanian artisanal fisherman has a rather positive attitude toward his occupation -- so positive that roughly one-half would like their sons to be fishermen. However, patterns of association between attitudes toward the occupation of fishing and other variables lead to the prediction that this relatively positive image of the occupation may become more negative in the future. This is based on findings suggesting a tendency among younger fishermen to be more critical of their occupation than the older fishermen, and that the more education a fisherman has, the less likely he will be to perceive fishing as a desirable occupation for his son. Today, though, it probably would be difficult to convince many fishermen that an alternative occupation could be as rewarding, unless the alternative rewards are presented in such a manner that they contrast favorably with the fisherman's perception of his present occupation.

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Artisanal Fishermen's Attitudes toward the
Occupation of Fishing in The Republic of
Panama

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INTRODUCTION An important aspect of development and change among artisanal fishermen is fishermen's attitudes toward and perceptions of their occupation. An understanding of the attitudes, beliefs, and values associated with an individual's occupation may help explain resistance to change in some instances, and in others, it may facilitate development of programmes to attract new members to the job force. This report examines artisanal fishermen's perceptions of the occupation of fishing in the Republic of Panama.

DATA Data presented here form part of the information collected from a sample of 153 artisanal fishermen in the Republic of Panama. Fishermen were interviewed in a wide range of locations extending from Colon on the Atlantic Coast to Panama City on the Pacific and at numerous locations along the Pacific Coast from Panama City to the Costa Rican border (see Figure 1). As a part of this survey several questions were included which concerned attitudes toward the occupation of fishing. The remainder of this paper examines responses to these questions.

POSITIVE ASPECTS OF FISHING Categories of responses to a question concerning aspects artisanal fishermen like most about fishing in comparison to other occupations can be found in Table 1.

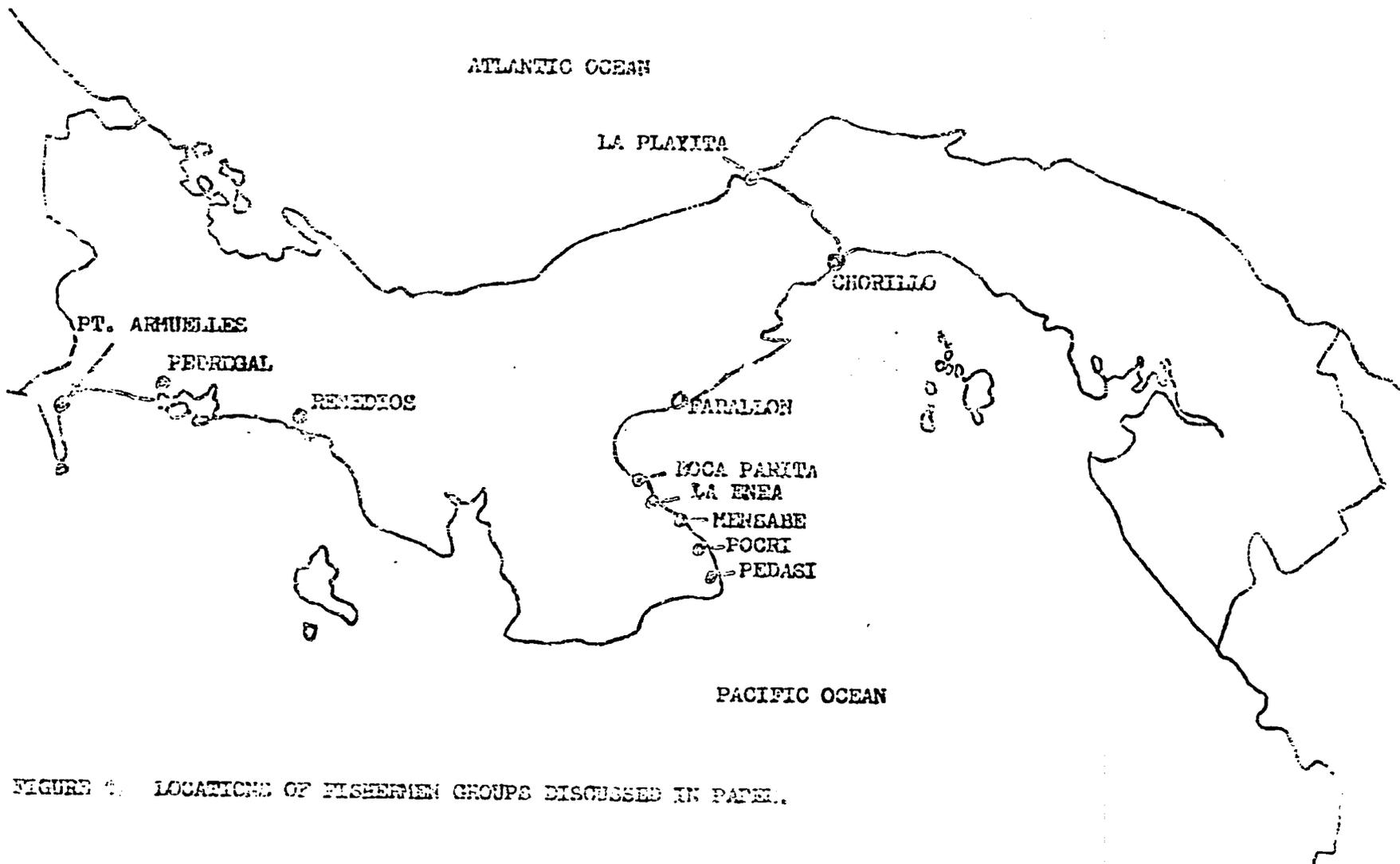


FIGURE 1. LOCATIONS OF FISHERMEN GROUPS DISCUSSED IN PAPER.

Table 1. Distribution of Categorized Responses Reflecting Positive Aspects of the Occupation of Fishing

<u>RESPONSE CATEGORY</u>	<u>FREQUENCY</u>
1. Sport-pleasure	53
2. Monetary Reward	47
3. Independence	25
4. Ease of work	5
5. Security	2
6. Do not know	7
7. Other	14

The most frequent response in Table 1 refers to the pleasurable, gaming aspects of fishing. Fishing is compared to a sport. Individual fishermen emphasize the pleasurable aspects of being on the sea, in the fresh air, and the sporting aspect of struggling with fish. The next most frequent response concerns economic rewards. Fishermen note that they can make more money, in less time, than in any other occupation available to them. The third most frequent response category concerns the independent character of the fishing occupation. Fishermen report that they like being their own boss, free to work as they please, when they want to. Other response categories manifest relatively low frequencies.

The most frequent response categories to this question were examined in terms of their relationship to age, boat proprietorship, and formal education. It is first noted that there is a weak tendency for younger fishermen (those below the sample mean of 37.1 years) to respond that they like the occupation of fishing because it is like a sport ($\chi^2 = 3.654$, $p < .06$). This is in

keeping with the impression that younger people are more adventuresome than older people.

A noteworthy finding is that boat owners are less likely to refer to the monetary reward of fishing than fishermen who do not own a boat ($\chi^2 = 5.823$, $p < .02$). This is somewhat surprising because the boat owner receives a greater monetary reward than a non-owner. The owner receives a full share of the catch for the use of his equipment. For example, if there are three fishermen in a boat the catch is divided into four shares, one of which goes to the owner. If the owner is also fishing from the boat, he receives two shares, or one-half the catch. The finding that non-boat owners are more likely to stress the monetary rewards of fishing than boat owners may reflect the relative salience of money to the two groups. Boat owners may have more confidence in the security of their income from fishing, thus the monetary reward, although important, would not be as salient as for non-boat owners. Conversely, we might note that boat owners have a significant amount of money tied up in their equipment and its maintenance and thus may not view their income as a large return on their investment.

Finally, there is a weak tendency for individuals who are more educated (above the sample mean of 5.1 years) to respond that they like the independence of the fishing occupation ($\chi^2 = 2.60$, $p < .10$).

NEGATIVE ASPECTS OF FISHING Categorized aspects of the occupation of fishing which are least liked by fishermen can be found

in Table 2.

Table 2. Distribution of categorized responses reflecting negative aspects of fishing

<u>RESPONSE CATEGORY</u>	<u>FREQUENCY</u>
1. Nothing disliked	76
2. Exposure to elements	18
3. Lack, loss, or failure of equipment	15
4. Lack or loss of fish	14
5. Lack of bait	6
6. Low fish prices	4
7. Do not know	2
8. Other	18

As can be seen in Table Two, most fishermen refuse to admit that there is anything that they dislike about their occupation. The most frequently mentioned negative aspect is exposure to the elements: bad weather, rough seas, dampness, etc. Other frequent response categories include absence of either fish or equipment.

Categorized responses regarding negative aspects of fishing were examined in terms of the respondent's age, boat proprietorship, and education. The only significant relationship found is that older fishermen (those over the sample mean of 37.1) are more likely to respond that there is nothing that they dislike about fishing than are younger fishermen ($\chi^2 = 6.973$, $p < .01$).

ATTITUDES TOWARD SON BECOMING FISHERMAN Another question reflecting attitudes toward the occupation of fishing concerns whether or not a fisherman would want his son to become a fisherman. 49.6% or roughly one-half the fisherman respond that they would like it if their son became a fisherman. This reflects a

relatively positive attitude towards the occupation of fishing, but it is one which varies from community to community as can be seen in Table 3.

Table 3. Distribution of fishermen who would like it if their son became a fisherman

<u>COMMUNITY</u>	<u>PERCENT OF FISHERMEN WHO WOULD LIKE SON TO BECOME A FISHERMAN</u>
Panama City (Chorillo)	21
Colon (La Playita)	53
Pedregal	50
Boca Parita	29
Pto. Armuelles	69
La Enea	44
Mensabe & South Azuero Peninsula	60
Farallon	50
Remedios	71

The low percentage of fishermen in Panama City who respond that they would like their son to become a fisherman probably reflects the relatively high salience of alternative occupational opportunities in the city.

Other variables potentially related to a father's attitude toward his son becoming a fisherman were also examined. First, the hypothesis that individuals whose fathers were fishermen would be more likely to want their son to become a fisherman is not supported by the data ($x^2 = 0.129$, $p > .10$). Second, the hypothesis that individuals who own the means of production (e.g. boat owners) would be more favorable toward having their son follow in their footsteps is also rejected ($x^2 = 0.087$, $p > .10$). Finally, the hypothesis that individuals with more than

the mean number of years of education ($\bar{x} = 5.1$) would be less likely to view fishing as a desirable occupation for their son is supported by the data ($\chi^2 = 2.71$, $p = 0.05$, one-tailed test).

Categorized rationales for both positive and negative responses to this question can be found in Table 4.

Table 4. Distribution of primary rationales for attitude toward son's becoming a fisherman

<u>RATIONALE</u>	<u>FREQUENCY</u>
POSITIVE Sport, exciting, distracting	6
POSITIVE Income	10
POSITIVE Take my place	22
POSITIVE Independent	4
NEGATIVE Do something better	25
NEGATIVE Hard life	28
NEGATIVE Low income	4
NEGATIVE Dangerous, Risky	6
OTHER (Positive & Negative)	46

A large number of the responses are idiosyncratic, thus resulting in the large "Other" category. These responses will be examined in a future report. Turning to the categorized responses we find that the most frequent positive response refers to the idea that it is desirable for the son to follow in the father's footsteps. The next highest positive response category refers to the relatively high income of fishermen. This is of course balanced by those negative responses which refer to a fisherman's income as being inadequate. Turning to negative

responses the most frequent refers to the hard life of the fisherman. Close behind this category in frequency is the desire for the son to do something better (e.g. be educated into a profession).

SUMMARY We find that in general the Panamanian artisanal fisherman has a rather positive attitude towards his occupation--so positive that roughly one-half would like it if their sons followed in their footsteps. Additionally, almost fifty-percent could not find anything negative to say about fishing when asked what they disliked about the occupation. These positive attitudes are probably engendered by the 'sporting' aspect of fishing which was mentioned by many fishermen. The relatively high monetary reward and the independent nature of fishing also contributes to the fisherman's high regard for his occupation.

Nevertheless patterns of association between attitudes toward the occupation of fishing and other variables lead us to predict that this relatively positive image of the occupation may become more negative in the future. This prediction is based on findings reported above which suggest a tendency on the part of younger fishermen to be more critical of their occupation than older fishermen. If these attitudes are maintained by younger fishermen as they grow older, and if the upcoming generation of fishermen continue the tendency to be more critical of their occupation, we will find ourselves in a situation where the overall attitude towards fishing will become more negative. This prediction is also supported by the finding which indicates that

the more education a fisherman has, the less likely he will be to perceive fishing as a desirable occupation for his son. If the situation which resulted in this finding continues, and if the educational level attained by the people of the Republic of Panama continues to rise as it has in the past, we would expect that fewer and fewer fishermen would want their sons to become fishermen in the future. It is suggested that changes in the industry which would both reduce the negative aspects of fishing and enhance the positive aspects could reverse this trend.

With respect to the present-day situation, however, we suggest that it would probably be difficult to convince many fishermen that an alternative occupation could be as rewarding unless the alternative rewards are presented in such a manner that they contrast favorably with the fisherman's perception of his present occupation. Additionally, changes in the fishery which fishermen perceive as being in conflict with positive aspects of artisanal fishing (e.g. a cooperative may be perceived as reducing a fisherman's degree of independence) will probably be resisted unless the proposed changes are introduced in such a manner that will either reduce or eliminate perceived conflict.

In sum, we have examined artisanal fishermen's attitudes toward the occupation of fishing and have suggested how this information can be used in applied situations.