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**SOUTHERN CALIFORNIA PRIVATE-BOAT SPORT FISHERMEN:  
HOW FAMILIAR ARE THEY WITH THE SPORT FISHING REGULATIONS?**

by

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SOUTHERN CALIFORNIA PRIVATE-BOAT SPORT FISHERMEN:  
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ABSTRACT

Anglers frequently violate sport fishing regulations out of ignorance, by mistake, or by deliberate action. To determine whether unfamiliarity with the regulations plays a major part in this problem, we asked anglers on privately-owned, trailerable boats at launch ramps and boat hoists a series of questions which tested their knowledge of the regulations.

We found that on any winter weekend about 30% of the anglers on private-boats knew none of the size limits, 50% knew at least three of the six size limits, and 4% knew all of the size limits. Only about 25% of the anglers kept a copy of the regulations on their boats for reference when fishing.

The results of the survey indicate that greater effort must be expended to familiarize sport fishermen with the fishing regulations.

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1/ Marine Resources Region, Administrative Report No. 80-4  
February 1980.

2/ Marine Resources Region, California State Fisheries Laboratory,  
350 Golden Shore, Long Beach, California 90802.

## INTRODUCTION

Fishery management regulations designed to conserve or enhance sport fish resources cannot be effective unless fishermen cooperate with these regulations. Anglers must be aware that the take of certain species is regulated, they must be able to recognize those species when encountered, and they must be willing to release the regulated fish they catch.

During a 1975-78 survey of southern California private-boat fishermen by the Department, it was noticed that many of the violations were due to anglers' ignorance of the sport fishing regulations and inability to identify regulated fish species. To determine if these factors contribute a serious obstacle to the success of fishery management programs, we conducted several studies designed to test the knowledge of two segments of the sport fishery: pier fishermen and private-boat fishermen. This report contains the results of the test of private-boat fishermen's familiarity with the 1979 California Sport Fishing Regulations.

The purpose of the survey was to find out 1) if anglers are aware that fishing regulations exist, 2) which size limits are most/least familiar to the angler, 3) how many anglers keep a copy of the regulations with them for reference when fishing, 4) how many anglers ought to keep a copy with them because they don't know all the size limits, 5) how many anglers don't need to keep a copy with them because they know all the size limits, and 6) how many anglers with regulations received the copy unsolicited, and how many had to specifically request them from an agency.

If anglers are not familiar with the regulations and do not keep a copy with them for reference when fishing, then violations of the regulations are bound to occur. A sublegal fish <sup>3/</sup> taken by ignorance is just as

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<sup>3/</sup> One which is less than the legal minimum size as measured by total length: the longest straight-line measurement from the tip of the head to the end of the longest lobe of the tail.

detrimental to the well-being of a protected species as a sublegal fish taken purposely.

#### OPERATIONS

During November 1979, through February 1980, each boat launching ramp in Los Angeles and Orange Counties was sampled on a Saturday or Sunday. One randomly-selected person from each incoming boat was approached and asked to participate in a fishing survey. Those anglers who agreed to participate (almost all were cooperative) were asked a series of ten questions (Figure 1). The interviewer did not provide any answers while the test was in progress, and the test was voided if another person prompted the angler being interviewed.

The 1979 California Sport Fishing Regulations were valid through February 29, 1980 and all sampling ceased at that time.

Unless otherwise stated, all the results listed refer to the population of fishermen who would be found actively fishing on a given day, and not to the total population of potential fishermen.

#### RESULTS AND DISCUSSION

We interviewed 294 anglers at nine launching facilities. Nearly everyone we talked to (98%) was aware that California has laws about sport fishing.

There are only six legal minimum size limits which marine fishermen in southern California need to know: 12 in. for the three *Paralabrax* bass species (kelp bass, *P. clathratus*; spotted sand bass, *P. maculatofasciatus*; barred sand bass, *P. nebulifer*); 22 in. for the California halibut, *Paralichthys californicus*; and 28 in. for both the California barracuda, *Sphyræna argentea*, and the white seabass, *Atractoscion nobilis*. We found that 30% of the anglers interviewed knew none of these size limits. However, nearly 50% of the anglers knew at least three of the size limits,

FIGURE 1. Questionnaire for sport fishing regulations test.

REGULATIONS TEST

<u>LOCATION</u>	<u>DATE</u>
<u>COUNTY</u>	<u>WEEKEND</u>
<u>SAMPLER</u>	<u>WEEKDAY</u>

ANGLER: M or F

1/ How long have you been fishing off the southern California coast?  
 less than 1 year                      6-10 years  
 1-5 years                                      over 10 years

2/ How often do you go fishing each year? \_\_\_\_\_

3/ Are you aware that fishing regulations exist?  
 yes                      no (if "no", skip to # 10)

4/ Do you have a copy of the fishing regulations?  
 yes                      no (if "no", skip to #8)

5/ Is it at home, or do you have it with you?  
 at home                      with him/her

6/ Where did you get it? \_\_\_\_\_

7/ Did you have to ask for it?  
 yes                      no

8/ Do you know the size limits on any fish?  
 yes                      no (if "no", skip to # 10)

9/ Which ones? (List names of fish and limits)

_____	_____
_____	_____
_____	_____
_____	_____

10/ Do you have a fishing license?  
 yes                      no

COMMENTS:

and about 4% knew all of the size limits.

The most familiar size limits known by private-boat anglers were for the three *Paralabrax* bass species, and for the California halibut. More than one-half of the anglers surveyed knew the correct size limits for these fishes (Table 2).

TABLE 1. Angler Familiarity with Minimum Size Limits.

Species	Limit	% of anglers knowing correct size limit	% of anglers with incorrect* size limit
<i>Paralabrax</i> bass spp.	12 in.	56	1
California halibut	22 in.	54	7
California barracuda	28 in.	19	14
White seabass	28 in.	8	2

\* An incorrect size limit refers to any limit which is smaller than the legal minimum size limit.

Surprisingly, less than one-fifth of the anglers knew the correct limit for California barracuda, which may explain why so many illegal barracuda are taken each year by these fishermen. (Between July, 1977, and June, 1978, 42% of all barracuda landed in Los Angeles and Orange Counties were sublegal <sup>4/</sup>). Many anglers knew that there was a size limit on this fish, but thought that it was somewhere between 22 and 26 inches.

The least well-known size limit was that of the white seabass. Only 8% of the anglers were familiar with this regulation.

Since very few anglers were familiar with all the size limits, the rest of the anglers should have been carrying a copy of the fishing regulations to use for reference on their boats. However, we found that only

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<sup>4/</sup> Southern California Independent Sport Fishing Survey, 1977-78, California Department of Fish and Game.

25% of the anglers kept a copy handy when fishing.

To determine the proportion of anglers who are not prepared to obey the minimum size limit regulations, we assumed that anglers who knew four or more size limits and/or kept a copy of the regulations available when fishing were potentially capable of obeying the size limit regulations. Nearly one-half (47%) of the anglers we interviewed were thus prepared. The remaining anglers had neither the knowledge nor the means to obtain the knowledge that would enable them to comply with the regulations.

Of the 164 anglers who claimed to have a copy of the regulations somewhere (with them, in their cars, at home, etc.), 124 received the pamphlet unsolicited; that is, they did not have to specifically request the pamphlet. It was given to them automatically when they purchased a fishing license, bait, or tackle, or when they talked with someone from the Coast Guard or the Department of Fish and Game. This means that many businesses which sell fishing equipment and licenses are doing a commendable job of trying to educate anglers about fishing regulations. On the other hand, the fact that only 40 of the 264 anglers surveyed made a specific effort to obtain a copy of the regulations shows that most private-boat anglers do not actively seek information about the regulations.

Experienced anglers were much more familiar with the regulations than were novice anglers (Table 2). About two-thirds of the anglers who fish very frequently (at least once each week) were familiar with three or more of the size limit regulations. Only one-fourth of the anglers who fish occasionally (less than five times each year) knew three or more regulations.

Very few people mistakenly placed restrictions on fish for which there are no legal minimum size limits. However, one angler surprised us by announcing that all fish have a 12-in. size limit, and another angler said that there is a 5-lb limit on bonito.

TABLE 2. Proportion of Anglers Knowing Three or More Size Limit Regulations.

	Total # of anglers sampled	Total # knowing 3 or more regulations
<u>Fishing frequency</u>		
Occasionally (<5 times/year)	61	15 (25%)
Regularly (1-2 times/month)	124	56 (45%)
Frequently (once/week or more)	79	53 (67%)
<u>Fishing experience</u>		
Less than 1 year	35	3 ( 9%)
1-5 years	57	19 (33%)
6-10 years	44	26 (59%)
10+ years	128	77 (60%)

Incidental Information

We collected some information that, although not directly related to the purpose of this survey, should be documented.

The ratio of male anglers to female anglers was 8.73:1.

A valid fishing license is required of all private-boat fishermen 16 years of age or older. About 84% of the adult anglers surveyed had a fishing license. This means that one out of every six anglers on a private-boat during winter does not have a license to fish.

On a given weekend in winter, about 25% of the people fishing from privately-owned, trailerable boats in southern California fish five times or less each year. Approximately 45% is composed of anglers who fish once or twice each month, and the remaining 30% is composed of anglers who fish once or more each week.

The population of anglers fishing on a given day is, of course, only a portion of the entire population of potential fishermen, since not all fishermen fish on the same day. To expand the findings of this survey to encompass all private-boat fishermen in the Los Angeles-Orange Counties

area, it is necessary to make adjustments to account for the fact that avid fishermen are more likely to be surveyed than occasional fishermen. To do this, we simply weighted the number of interviews in each fishing frequency group by the reciprocal of each group's relative probability of being sampled. Using these weighted figures, about 72% of the total population of private-boat, weekend fishermen in Los Angeles-Orange Counties in winter is composed of occasional anglers, 25% is composed of regular anglers, and only 3% is composed of frequent anglers.

#### CONCLUSIONS AND RECOMMENDATIONS

This survey showed that about one-half of the fishermen on privately-owned, trailerable boats on any given Saturday or Sunday are not prepared to obey the size limit regulations. This is an underestimate because we assumed that if a fisherman has a copy of the regulations on board his boat, he will refer to it.

In order to protect depleted marine resources and to conserve healthy marine resources, the Department must make information on the fishing regulations widely available to the angler. That means printing at least as many copies of the regulations as there are anglers (in 1979, 1.5 million copies were printed for 2.25 million licensed anglers), and making a determined effort to distribute this information to the anglers. There are many other ways to educate anglers about the regulations, such as through news media, sportsmen's publications, posters, etc., and the Department should use any means available to ensure easy access to the fishing regulations.

The fisherman must also do his part to conserve our resources. He should learn the size and bag limits, or else have a copy of the regulations at hand when fishing. Of course, he must also choose to comply with the regulations. Anglers must realize that much of the responsibility for the further depletion or enhancement of a protected sport fish population falls directly upon the sport fishermen's shoulders.