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# **Behavior Patterns of Divers Visiting the Alger Bottomland Preserve**

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## PREFACE

The results of this study would not have been possible without the dedicated efforts of the staff at the Michigan State University Travel, Tourism, and Recreation Resources Center who analyzed the data. A special thank you is to be given to Bob and Judy Cromell and Jerry and Judy Cromell of Sea and Ski Scuba who coordinated survey activity within the Alger Underwater Preserve. Also George Tomasi and Pete Lindquist should be thanked for encouraging their charter customers to participate in the survey. Gary Snedeker of Bayshore Press supplied the Alger Preserve diver logo stickers for those divers participating in the survey. And the Alger Underwater Preserve Committee should be acknowledged for their continued support in getting such a project off the water. Finally, recognition must also go to Jon Peterson (Northeastern Michigan Sea Grant Agent) for getting the raw data from the surveys ready for analysis.

## Introduction

Michigan's Underwater Preserves contain many treasures which reveal the Great Lakes nautical history. These underwater treasures represent one of the most unique and inviting spectacles in the Midwest. The Alger Underwater Preserve in Lake Superior is off Alger County and city of Munising. This area has been popular with divers and is recognized for its pristine waters, protected bay, and warm community hospitality toward divers.

To increase awareness of Michigan's unique historical resource throughout the United States and Canada the size and characteristics of the dive market must be defined. The void in information has made it difficult for charter captains, dive shops, and the Alger Underwater Preserve Committee to develop more cost effective marketing strategies. In addition, the lack of information on diving in Michigan's Underwater Preserves has complicated industry efforts to convince state agencies and local units of government to develop and improve promotional efforts.

This report is a synopsis of behavior patterns of divers visiting the Alger Underwater Preserve during the 1986 diving season. Since similar surveys were conducted during the 1984 and 85 diving seasons, comparisons have been made where possible. It is hoped that this information can be used to refine current marketing strategies by the Alger Underwater Preserve Committee so that monies used for promotion can be used to their optimum.

## Survey Methods

A copy of the survey which was distributed to divers visiting the Alger Underwater Preserve in 1986 is at the end of this report. Similar surveys were distributed in the 1984 and 1985 diving seasons. The surveys were distributed through local charters and the dive shop.

A total of two hundred valid surveys were obtained from divers visiting the Alger Underwater Preserve during the 1986 diving season. From the data gathered it was possible to document the origins and behavior of divers. Comparisons have been made where possible from data collected from the 588 and 133 valid surveys taken in the 1984 and 1985 diving seasons, respectively.

## First Time/Repeat Visitors

The 1986 diver survey indicated that 65.5% of the divers were on their first visit to the Alger Underwater Preserve while 34.5% were repeat visitors. This is in sharp contrast to the 1984-85 diver surveys where 24% and 53% of the divers were on their first visit to the preserve in 1984 and 1985, respectively. Thus from 1984 to 1986 the first time diver composition has increased by 41.5%.

### Length of Stay

In 1986 the average diver stayed 2.90 days while visiting the Alger Underwater Preserve. This is an increase over the previous two years as divers stayed an average of 2.42 and 2.72 days in 1984 and 1985, respectively. Thus from 1984 to 1986 the average diver has increased his stay by a half a day. Divers from outside Michigan stay an average of one day longer (3.35 days) when compared to divers from Michigan (2.32 days). There was no significant difference in the length of stay between first time visitors (2.98 days) and repeat visitors (2.76 days).

Table 1 includes the length of stay of divers for 1986 separated by information source, accommodations, and diving mode. As can be seen from Table 1, divers using the charter captain as an information source stayed an average of 3.58 days, using a cabin as accommodations stayed an average of 10.25 days, and those diving from shore stayed an average of 4.95 days.

Table 1. Length of Stay (Days)

<u>Information Source</u>		<u>Accommodations</u>		<u>Diving Mode</u>	
Charter	3.58	Cabin	10.25	Shore	4.95
Dive Show	3.00	Second Home	6.67	Charter	2.93
Other Divers	2.96	Motel	2.78	Private	2.70
Dive Club	2.78	Camping	2.72	Rental	2.32
Dive Shop	2.73	Family/Friends	2.25		
Other	2.69				
Brochure	2.00				
Advertisement	2.00				

### Accommodations

In 1986 54% of the divers surveyed lodged in a motel. This is exactly the same percentage as found in 1985, but is significantly less when compared to the 70% of divers using a motel for accommodations in 1984. Only 2% of those surveyed indicated that they used cabins in 1986 as compared to 11% in 1985, and 22% in 1984. Camping seems to be becoming more popular with divers as 31% camped in 1986, 25% in 1985, and only 6% in 1984.

Table 2 shows accommodations used by first time and repeat visitors in 1986. About 60% of first time visitors to the Alger Underwater Preserve used a motel for accommodations compared to 42% for repeat visitors. More repeat visitors camped (36.2%) as compared to first time visitors (28.6%).

Table 2. Accommodations Used by First Time and Repeat Visitors

<u>Accommodations</u>	<u>First Time (%)</u>	<u>Repeat (%)</u>
Motel	60.1	42.0
Camping	28.6	36.2
Not Staying	6.0	11.6
Second Home	3.0	2.9
Cabins	1.5	2.9
Family/Friends	0.7	4.3

Persons Accompanying Divers

In 1986 an average of 0.64 non-divers accompanied each diver on their visit to the Alger Underwater Preserve. This is a significant decrease when compared to 1.37 non-divers in 1985 and 2.88 non-divers in 1984. There was no significant difference between first time non-divers (0.67) and repeat non-divers (0.57) in 1986.

The average party size visiting the Alger Underwater Preserve in 1986 was 5.19 people. There was no significant difference between first time party size (5.29) and repeat party size (5.00).

Diving Mode

In 1986 52% of the sample indicated that they used a charter service, compared to 68% in 1985, and 85% in 1984. Divers using a private craft have been on an increase with 11% in 1984, 19% in 1985, and 27% in 1986. Divers using rental craft in 1986 (12%) was about the same as that in 1985 (13%), but more than the 3% using rental craft in 1984. In 1986 9% of the divers dove from shore compared to 0% in 1985 and 1% in 1984.

Table 3 shows the diving mode used by first time and repeat visitors in 1986. First time visitors use a charter service (54.5%) more than repeat visitors (47.9%). The most striking observation can be seen from the 43.8% of repeat visitors who use a private craft compared to the 17.9% of first time visitors using private craft.

Table 3. Diving Mode Used by First Time and Repeat Visitors

<u>Diving Mode</u>	<u>First Time (%)</u>	<u>Repeat (%)</u>
Charter	54.5	47.9
Private	17.9	43.8
Rental	15.9	4.1
Shore	11.7	4.1

The diving mode and accommodations used by divers visiting the Alger Underwater Preserve are given in Table 4. It can be seen that 33.6% of all the divers use both a charter and a motel during their visit.

Table 4. Diving Mode and Accommodations Used by Visitors (%)

	<u>Charter</u>	<u>Private</u>	<u>Rental</u>	<u>Shore</u>
Motel	33.6	12.3	4.1	4.5
Camping	12.7	11.8	4.1	2.3
Not Staying	1.4	2.3	3.2	0.5
Second Home	1.4	0	0	1.4
Cabins	1.8	0	0	0.9
Family/Friends	0.9	0.5	0.5	0

#### Information Sources

Table 5 shows information sources used by divers in 1984, 85, and 86. The information source used by most divers in 1984 was the charter operator, in 1985 it was the dive shop, and in 1986 it was other divers. Word of mouth by other divers has steadily grown as an information source for the Alger Underwater Preserve.

Table 5. Diver Information Sources (Percent)

<u>Information Source</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
Charter	45	9	10
Other Divers	24	32	47
Dive Shop	14	40	6
Dive Show	12	1	1
Advertisement	1	5	3
Dive Club	4	4	27
Other	0	9	5

Table 6 shows information sources used by first time and repeat visitors to the Alger Underwater Preserve in 1986. There appears to be no significant difference between information sources used by these two groups.

Table 6. Information Sources Used by First Time and Repeat Visitors

<u>Information Source</u>	<u>First Time (%)</u>	<u>Repeat (%)</u>
Other Divers	45.0	47.1
Dive Club	27.5	24.7
Charter	9.4	10.6
Dive Shop	6.9	4.7
Other	5.0	3.5
Advertisement	3.1	2.3
Dive Show	1.9	3.5
Brochure	1.2	3.5

Table 7 shows information sources used by in-state and out-of-state visitors to the Alger Underwater Preserve in 1986. Word of mouth by other divers seems to be a valuable information source for both in-state and out-of-state divers. In-state divers utilize dive clubs for information more than out-of-state divers. Out-of-state divers utilize charter service and dive shops for information more than in-state divers.

Table 7. Information Sources Used by In-State and Out-of-State Visitors

<u>Information Source</u>	<u>In-State (%)</u>	<u>Out-of-State (%)</u>
Other Divers	46.8	46.2
Dive Club	36.4	20.7
Charter	4.2	13.8
Dive Shop	2.1	8.9
Other	5.2	4.1
Advertisement	2.1	3.4
Dive Show	2.1	2.0
Brochure	1.0	0.6

#### Diver Residence

Table 8 shows the residence of divers visiting the Alger Underwater Preserve in 1984, 85 and 86. In 1984 and 85 the majority of the divers came from Wisconsin and Illinois with only 20% coming from Michigan. In 1986 43.5% of the divers were Michigan residents and 56.5% were non-residents. First time visitors to the preserve were 44.3% residents and 55.7% non-residents, while repeat visitors were 42% residents and 58% non-residents.



Table 8. Diver Residence (Percent)

	<u>1984</u>	<u>1985</u>	<u>1986</u>
Wisconsin	30	29	20.5
Illinois	30	38	11.0
Michigan	20	20	43.5
Minnesota	6	4	10.5
Iowa	6	3	0
Indiana	4	0	4.0
Ohio	3	3	5.0
Other (U.S. & Canada)	1	3	5.5

In 1986 43.5% of the divers visiting the Alger Underwater Preserve were Michigan residents. Table 9 shows which Michigan counties these divers came from. About half of these divers (20.5%) are from Southeast Michigan and about one-third (12%) are from the Upper Peninsula.

Table 9. Residence of Michigan Divers by County and Percent

Barry	0.5	Houghton	0.5	Macomb	3.5
Branch	1.0	Ingham	2.5	Marquette	2.5
Chippewa	3.0	Iron	0.5	Menominee	2.0
Delta	0.5	Isabella	0.5	Muskegon	2.5
Dickinson	3.0	Kalamazoo	0.5	Oakland	4.5
Genesee	1.5	Kalkaska	0.5	Saginaw	1.0
Grand Traverse	1.0	Kent	1.0	Shiawassee	0.5
Hillsdale	1.0	Lapeer	6.0	Wayne	3.5

Month of Visitation

Table 10 shows the diving activity by month within the Alger Underwater Preserve for the 1984, 85, and 86 diving seasons. Diving activity peaked in July and August.

Table 10. Diving Activity by Month (Percent)

<u>Month</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
May	5	0	8.5
June	12	11	21.0
July	32	44	36.5
August	32	42	28.0
September	19	3	6.0

### Diver Attitudes Toward Area

During the 1986 diving survey divers were given the opportunity to comment about their perceptions of what they like most or least about the area. These questions were designed to permit divers to express their mindful perceptions, rather than lead them into particular responses. Therefore, while in some instances the frequency of any particular response seems low, each response represents the conscious attitude of a diver.

Table 11 contains some of the more frequent comments by divers about what they like most or least about the area. It is obvious that divers visiting the Alger Underwater Preserve like the good diving, beautiful scenery, clear water, shipwrecks, and the friendly community. What divers like least about the area is beyond change, such as the cold water, bad weather, and long distance.

Table 11. Diver Attitudes Toward Area (Percent)

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<u>Like Most</u>		<u>Like Least</u>	
Good Diving	29.0	Cold Water	13.0
Scenery/Beautiful Area	22.0	Bad Weather	9.0
Clean Water	20.0	Long Distance	8.0
Shipwrecks	18.0	Nothing	5.0
Friendly Community	9.0	Insects	3.0
Everything	6.0	Not Enough Shipwrecks	2.0
Diving on Smith Moore	4.4	Access	2.0
Other Outdoor Activities	3.8	Lack of Other Activities	1.6
Good Restaurants	3.3		
Waterfalls	2.2		
Other Sites	2.2		
Accessibility of Shipwrecks	2.2		
Rock Formations	2.2		
Calm Waters	2.2		

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### CONCLUSIONS

The number of divers visiting the Alger Underwater Preserve for the first time is on the increase as indicated by the 1986 diver survey which showed that about 65% of those surveyed were on their first visit to the preserve. Thus the Alger Underwater Preserve Committee and associated diving businesses should continue their promotional campaign to attract new divers to the preserve. It is also important that when divers visit the preserve they are treated right so as to obtain more repeat visitors and assist with promotion by word of mouth.

Since divers from outside Michigan stay an average of one day longer when compared to divers from Michigan, an effort to attract more divers from out of state would have an added economic benefit. An effort should also be made to attract more non-divers to the Alger Underwater Preserve. This could be accomplished by listing the attractions in the area that would be of interest to non-divers who accompany divers to the preserve. The number of non-divers who accompany divers to the preserve has decreased since 1984, resulting in decreased economic benefits to the community.

In 1986 52% and 54% of the divers surveyed indicated that they used a charter service and motel, respectively, during their visit to the Alger Underwater Preserve. In fact, about 34% of those surveyed indicated that they used both a charter service and a motel during their visit to the preserve. Thus it may be beneficial if charterboat captains and motel owners collaborate on package deals aimed at divers.

Word of mouth by other divers continues to have a strong and steady growth as an information source for the Alger Underwater Preserve. Thus it is imperative that divers visiting the preserve are treated in a hospitable fashion so they can become ambassadors for the preserve. Charter operators should continue to work with dive clubs in promoting the preserve as they are also a valuable information source for divers.

In 1984-85 80% of the divers visiting the Alger Underwater Preserve were from outside of Michigan as compared to 56.5% in 1986. An effort should be made to continue to attract more divers from out of state. This could be accomplished through promotional campaigns aimed at dive clubs and dive shops in neighboring states such as Wisconsin, Illinois, and Minnesota. Since half of the Michigan divers visiting the Alger Underwater Preserve are from Southeast Michigan continued promotional efforts aimed at dive clubs in this metropolitan area would be of benefit.

July and August are the months where diving activity is at its peak within the Alger Underwater Preserve and thus promotional efforts should be increased to attract divers during the shoulder months of May, June and September. This could be accomplished by offering charter/motel package deals at reduced rates during these slack months. The Alger Underwater Preserve Committee may want to explore the feasibility of starting a dive festival during a week or weekend in June. The committee should also investigate the possibility of using the many underwater geological formations as dive sites.

The 1986 diver survey indicated that divers have a positive image of the Alger Underwater Preserve and surrounding area. Divers indicated that they enjoyed the good diving, beautiful scenery, clean water, shipwrecks, and friendly community. Thus it is evident that once divers visit the preserve a positive image is created which they carry back home with them and help promote the preserve by word of mouth.

It is hoped that this information will be used by charter captains, dive shops, the Alger Underwater Preserve Committee, and other associated businesses to develop more effective marketing strategies which will result in increased visitation to the Alger Underwater Preserve.

ALGER UNDERWATER PRESERVE  
DIVER INFORMATION SURVEY



In order to effectively plan for the future development of the Alger Underwater Preserve, it is important that we learn more about the divers who are enjoying its diving attractions. We would appreciate your assistance by taking a few minutes to complete the following form.

Thank you.

Alger Underwater Preserve Committee, Inc.

Date: \_\_\_\_\_

Is this your first diving trip to the Munising Area? Yes  No

How many days do you plan to stay in the area? \_\_\_\_\_

Local accommodations:

Not staying overnight	<input type="checkbox"/>	Camping	<input type="checkbox"/>
Motel/Hotel	<input type="checkbox"/>	Family/Friends	<input type="checkbox"/>
Rental Cabins/Cottages	<input type="checkbox"/>	Own second home	<input type="checkbox"/>

How many persons accompanied you on this trip? \_\_\_\_\_

How many non-divers accompanied you on this trip? \_\_\_\_\_

I will dive from:

Charter boat	<input type="checkbox"/>	Rental craft	<input type="checkbox"/>
Private craft	<input type="checkbox"/>	Shore	<input type="checkbox"/>

How did you first learn about diving in this area?

Other diver(s)	<input type="checkbox"/>	Dive Club	<input type="checkbox"/>
Charter operator	<input type="checkbox"/>	Trade show	<input type="checkbox"/>
Paper/magazine ads	<input type="checkbox"/>	Preserve brochure	<input type="checkbox"/>
Other (please specify)	_____		

Where is your permanent residence located:

\_\_\_\_\_ CITY STATE OR PROVINCE ZIP CODE

What do you like most about this area?

\_\_\_\_\_  
\_\_\_\_\_

What do you like least about this area?

\_\_\_\_\_  
\_\_\_\_\_

Please fill out if you are willing to provide additional information.

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY/STATE/ZIP \_\_\_\_\_