

# Mission Accomplished?

## Measuring Monterey Bay Aquarium's Role in Inspiring Ocean Conservation

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Do you ever wonder if a visit to your aquarium or zoo has any lasting effect on your guests?

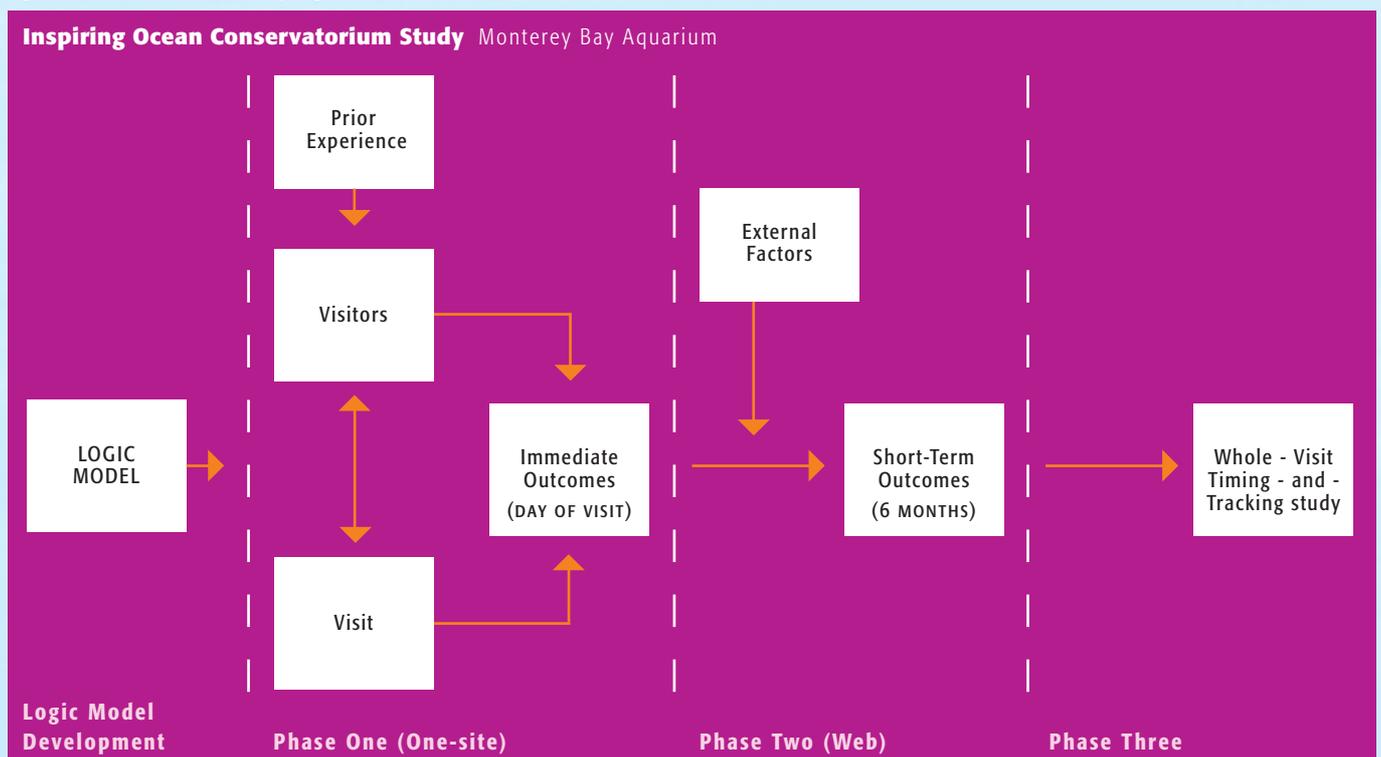
If all your efforts to inspire, engage and empower visitors about ocean conservation really have an impact? Most aquariums are driven by ocean conservation missions, but it's hard to know if you're accomplishing that mission.

For the most part, we never hear from the vast majority of our visitors, and probably won't find out if their visit had any impact on their lives, either positive or negative. But since the mission of the Monterey Bay Aquarium is 'to inspire conservation of the oceans,' we were determined to learn – systematically – who we're inspiring, to what extent we're fulfilling our mission, and how. To find the answers, we embarked on a research project in 2006 called the 'Inspiring Ocean Conservation Study.'

### Methodology

We started our study by developing a logic model that described the conservation outcomes for a typical visit. The research was divided into three phases: an exit survey to look at visitor outcomes immediately after the visit (Phase 1), a six-month follow-up using a web survey (Phase 2), and a whole-visit timing-and-tracking study (Phase 3). Phases 1 and 2 are complete, as is data collection for Phase 3 – this paper will focus on the initial two phases only.

Figure 1 Research Framework of Inspiring Ocean Conservation Study



With the help of staff from all areas of the aquarium, including our restaurant and gift shops, we identified a number of visitor outcomes that might indicate we were achieving our mission. For example, before their visit, we hoped visitors would be excited and know what to expect when they arrived, be aware of the Aquarium's commitment to conservation, and regard us as a trusted voice for the ocean. During their visit, we expected visitors to have an enjoyable experience, build a stronger emotional connection to the oceans, increase their level of knowledge about ocean life, become more aware of ocean conservation issues, and take home a meaningful souvenir. After a visit, we expected them to feel excited about visiting again, continue to learn about topics related to their visit, take some personal action on behalf of the oceans, and become part of the aquarium's constituency.

**For Phase 1**, the on-site study, we collected data during summer (August and September) and winter (November) of 2006. We intercepted visitors as they left the aquarium and collected a total of 1,005 completed written surveys, with a response rate of about 44%. The survey took about 20 minutes to complete (a significant time commitment), and since we indicated this to visitors up front, we felt the response rate was acceptable.

**Phase 2** of the study involved contacting respondents from the on-site survey six months after their visit. We had 360 respondents, or about a 34% response rate. We offered an incentive to participate, and sent them a reminder to complete the survey.

It is well documented that in any study of this type some respondents may respond more favorably than is actually the case. As a result, we've been careful to examine the data from both a qualitative as well as a quantitative viewpoint. The findings reported here represent a 'best case' scenario for fulfilling our mission – what can happen during a visit to the aquarium. While there may be some response bias we were unable to observe, it's clear that we have abundant evidence that visitors are inspired, and this inspiration can lead to action.

### Findings and Implications

To help illustrate some of the findings, I will profile several actual visitors who participated in both the on-site and web follow-up surveys.

#### VISITOR #283 PROFILE

- Female, 51 years old
- Belongs to a conservation group
- Not a member of Monterey Bay Aquarium
- Repeat visitor (more than 5 years since last visit)
- Reason for visit: actively supports ocean conservation

**VISITOR #283** came alone and stayed for three hours. She's a strong representative of what we're calling the 'conservation-oriented' visitor. These quotes are from her web survey:

*"I've always believed in ocean conservation, but feel stronger about it and inspired to be more pro-active since my visit to the aquarium."*

Here's how she responded to the question:

*"What have you done differently since your visit?":  
"Participated in coastal cleanup, try to be a more meticulous recycler, use less [sic] plastic bags, try to educate others when possible."*

One of our most important findings is that nearly 90% of on-site visitors agreed that their visit inspired them to 'want to help conserve the oceans.' Visitors of all types, even those who rated their overall visit low on the satisfaction scale, reported that they were inspired by their visit. And 94% of web respondents said they remembered feeling inspired six months later.

Here's someone on the other end of the spectrum, the one person out of ten who wasn't inspired:

#### VISITOR #310 PROFILE

- Male, 65 years old
- Doesn't belong to a conservation group
- Not a member of Monterey Bay Aquarium
- Repeat visitor (been once in past 5 years)
- Reason for visit: seeing the animals

**VISITOR #310** came with his wife and said he wasn't inspired about ocean conservation during his visit and wasn't inspired to do something differently six months later. Here are some of his quotes from the web survey:

*"I think the conservation concerns are exaggerated and overblown."*

*“Return to the early days of the aquarium and make it just a fun place to visit without the overwhelming propaganda campaign. I get tired of being ‘preached to’ everywhere I go.”*

Even though he wasn’t inspired and didn’t appreciate the conservation messages, he stayed for five hours and commented on the web survey that his visit was “Absolutely wonderful. So fascinating we spent 3 times as much time there as intended.”

Another key finding of the study is that some experiences at the aquarium are more strongly associated with increasing visitors’ conservation knowledge, feelings, attitudes, and behaviors. The more of these experiences visitors have, the more likely they are to show gains in conservation outcomes. These experiences are:

- Interacting with a staff member or a volunteer about ocean conservation
- Picking up a Seafood Watch pocket guide
- Visiting exhibits with a strong and explicit conservation focus
- Watching a program (feeding demonstration, auditorium presentation or deck programs)

These experiences also tend to be associated with stronger conservation outcomes after the visit. In addition, there were significant differences between

Interacting with a staff member or a volunteer about ocean conservation is strongly associated with increasing visitors’ conservation knowledge, feelings, attitudes, and behaviors.

visitors who had two or more of these experiences and those who didn’t – they were more inspired, more satisfied, and reported having more educational and entertaining visits.

A visitor writes to California’s governor about the creation of marine protected areas at Monterey Bay Aquarium’s Take Action exhibit.



Photo © Cynthia Vernon / Monterey Bay Aquarium

It’s not surprising that, without reinforcement, our visitors’ feelings and intentions to act diminish with time. This finding indicates that we should take advantage of visitors’ peak levels of inspiration by offering more opportunities for them to take action while they’re still at the aquarium – like at our Take Action exhibit – and then reinforce that behavior afterwards, for example by having them send an electronic postcard to themselves or others. The Take Action exhibit has recruited thousands of visitors to join our Ocean Action Team. In return, they receive regular updates and calls to action via Aquarium e-mails (see [www.mbayaq.org/oa/](http://www.mbayaq.org/oa/)).



Photo © Cynthia Vernon / Monterey Bay Aquarium

One of the assumptions in our logic model was that the more someone visits the Aquarium, the greater their inspiration and inclination to take some kind of conservation action. However, our findings indicated this wasn't the case, since first-time visitors were just as inspired and likely to act as were repeat visitors and Aquarium members. This is partly explained by the high level of inspiration members report upon arriving at the Aquarium, which makes it hard to show a change. It doesn't mean that there aren't differences between members and non-members, but we need more information about how visitors view their membership. It also reinforces an assumption that we had from the beginning of the study – that we need to rethink our typical way of defining a person's level of involvement with the Aquarium and look at new ways of classifying our visitors.

An interesting outcome of our research is that we're starting to identify visitors who, in general, have higher conservation outcomes. The next visitor is an example of one of these emerging segments.

**VISITOR #93 PROFILE**

- Female, 71 years old
- Doesn't belong to a conservation group
- Not a member of Monterey Bay Aquarium
- First-time visitor
- Reason for visit: values the aquarium's reputation as a good place to visit

**VISITOR #93** came alone and stayed about 1.5 hours. She didn't visit any of our 'conservation exhibitions,' but did see several auditorium programs. She also talked with our staff. Here's what she told us in her web survey:

*"I never realized the damage that we are doing to our 'friends' who live in the ocean by not practicing good conservation practices."*

*"Only visiting the ocean once a year and then for several months only, it had not been on my priority list. I now am aware of the need for conservation, where before I was probably indifferent."*

*"I would like to volunteer in Jupiter, Florida where I spend the winter. I am particularly interested in the loggerhead turtles and plan to check out the volunteer program at the loggerhead conservation area there."*

This leads to another key finding: visitor identities and some visitor demographics make a difference when it

comes to conservation outcomes. We found that females and older visitors scored higher on conservation attitude, knowledge, and action scales than other visitors did. Overall, greater conservation outcomes were seen in:

- Women (compared to men)
- Adults with children (compared to those without children)
- Those visiting for educational or conservation reasons
- Members of a conservation group or those with a strong passion for the ocean

Another segment of visitors that began to emerge was the 'socially-minded' – mostly people visiting with children to facilitate learning or as a social outing.

**VISITOR #377 PROFILE**

- Female, 40 years old
- Doesn't belong to a conservation group
- Not a member of Monterey Bay Aquarium
- Repeat visitor (visited twice in past 5 years)
- Reason for visiting: values the aquarium's reputation as a good place to visit

**VISITOR #377** was here with her children ages one and four. They stayed for 4.5 hours. When asked in the web survey what she was inspired by, she replied:

*"I felt closer to the ocean with the exhibit and directly felt responsible to do anything within my power to help conserve the oceans after this visit, though I went five times in my youth. Having children and really taking the time to see the exhibits inspired me."*

Here's what she's doing differently six months after her visit:

*"I'm officially a supporter ... meaning I will now stand up at any meeting to remind people about our responsibility. I never had a 'voice' about it before. Before my last visit, I didn't think or hope that I could make a difference."*

When asked about the amount of conservation information currently presented in the aquarium, 81% of visitors felt that the amount was 'just right.' Seventeen percent said it was 'not enough,' and a small percentage (2%) felt it was 'too much.' Clearly, most visitors are receptive to our messages, and they're looking for suggestions about how they can make a personal contribution to conserving oceans.

Our most successful messages about action relate to buying sustainable seafood – the relentless integration of this message into exhibitions, programs, staff interactions, and our website is clearly having an impact. Sixty-four percent of web respondents said their visit inspired them to ‘do something new or different,’ and the most common action was choosing sustainable seafood. Distributing the Aquarium’s Seafood Watch pocket guide seems to be a particularly effective approach, as it provides visitors with a specific set of actions and a tool to reinforce behavior after the visit.

One last visitor illustrates an issue that emerged in the study.

#### VISITOR #156 PROFILE

- Male, 67 years old
- Belongs to several conservation groups
- Not a member of Monterey Bay Aquarium
- First-time visitor
- Reason for visit: celebrating a special occasion with family and friends

Conservation-oriented **VISITOR #156** stayed for 2.5 hours. He didn’t visit any ‘conservation exhibitions’ or see any programs, but did he talk with staff at some point. He falls into the uninspired group, but for a very specific reason. From his web survey:

*“The message was completely lost on me. The place was a circus. Noisy, crowded, confusing. For the life of me I can’t possibly understand how you can get your purpose communicated. I’m a college grad, support Environmental Defense Fund a lot, plus other environmental causes...but the atmosphere was not conducive to the communication of your mission.”*

*“I recall the physical aquarium, but not your message. My sense is, then and now, that very little, if any, is being done about ocean conservation.”*

About 20% of visitors in the study cited something that prevented them from having an enjoyable experience; the number one problem mentioned was crowding (the Aquarium’s attendance is about 1.8 million visits annually). This study is the first time we’ve documented that crowding has a negative association with being inspired to conserve the ocean. It’s not just a customer service issue – it conflicts with our mission. As a result, we’re discussing various ways to alleviate the impact of crowds during our busy summer months.

Crowding is not just a customer service issue – it conflicts with our ability to inspire ocean conservation.



Photo © Jonathan Blair / Monterey Bay Aquarium

We have completed data collection in the third and final phase of the research, which involves conducting a whole-visit timing-and-tracking study to get a clearer picture of how visitors are actually spending their time with us. 102 visitors allowed us to record what they did, starting with a brief pre-visit interview, and ending with a 15-minute debrief of their experience. We’re currently analyzing the data to apply them to what we’ve already learned from the first two phases of the study.

#### Conclusions

The Inspiring Ocean Conservation Study confirms that the Monterey Bay Aquarium is having a positive impact on the conservation outcomes of our visitors. It also highlights some things that we should focus on to maximize that impact: encouraging staff to interact with visitors; doing more to promote our on-site programs; finding special ways to engage older visitors and women, who are particularly receptive to conservation messages; offering opportunities for visitors to take immediate action and helping reinforce those actions; and reducing the effects of crowding.

Mission accomplished? In many ways, yes, but it’s an on-going challenge and we’re far from done!

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