

**Visitor Interest in a
Jellies 2002 Special Exhibition
at the Monterey Bay Aquarium**

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Executive Summary

This research was conducted to inform the planning process for a new jellies exhibit at the Monterey Bay Aquarium. The main issues investigated were:

- Are visitors interested in interpretive information about jellies or is it only important to have an esthetically attractive exhibit?
- What esthetic features are most appealing?
- What kinds of information and ways of presenting information are most enticing to visitors?

A sample of 195 aquarium visitors was interviewed upon leaving *The Outer Bay*, after seeing the current jellies exhibits in the Jellies-Drifters Gallery (everyone in this sample has some experience viewing jellies).

Highlights of the results

- There is high interest in seeing a new jellies exhibit (exceeded only by ‘efforts to save ocean wildlife’!)
- Although the esthetic qualities of a jellyfish exhibit (particularly the way they glow) are clearly important to visitors’ experience, aquarium visitors also expect that exhibits will include information.
- The most appealing informational topic is ‘all about stinging.’ People are also interested in the many different varieties of jellies and the range of habitats where they live.
- Visitors prefer exhibit experiences that involve seeing live animals, close-up, and in natural settings.

A. Visitors' Experience of the Jellies-Drifters Gallery

OVERVIEW: Visitors are impressed with The Jellies-Drifters Gallery in *The Outer Bay* (two-thirds rated the exhibit a 9 or 10 on a 10-point scale). Ratings are equally high among all types of visitors (e.g., there are no differences between first-time and repeat visitors, families with children and adult-only groups, etc.).

The esthetic qualities of the exhibit gallery were selected most often (the top five choices) as the best features (especially 'the way jellies look like they're glowing'). There are some variations in preferences based on group composition and education level of visitors (data on next page).

The two most appealing "informational" items (6th and 7th choices overall) were 'finding out how jellies catch and eat food' and 'the variety of sizes.' Reactions to the information-oriented aspects of the exhibit were similar among all segments of visitors.

What rating would you give the jellies exhibits on a scale of 1 to 10?

high (9-10)	66%
medium (7-8)	31%
low (1-6)	3%

Which of these aspects would you say are the best two to three features of the exhibit?

⌘	the way the jellies look like they're glowing	52%
	⌘ it's like an art exhibit in motion	31%
⌘	the mysterious atmosphere created by the lighting	29%
	⌘ they move so gracefully	27%
	⌘ they're transparent and fragile	26%
	📖 finding out how jellies catch & eat food	25%
	📖 the variety of sizes	25%
	📖 information such as how they live & reproduce	20%
	⊛ it's like seeing into another world	19%
	📖 looking at how they're built	18%
	⌘ the background music	17%
	⊛ it gives you a wonderful eerie feeling	12%
	⌘ identifies <i>aesthetic</i> items	
	📖 identifies <i>information</i> items	
	⊛ identifies other <i>experiential</i> items	

Coding of preferred features:
 A. 36% chose only esthetic or experiential features
 B. 3% chose only informational features
 C. 61% chose a combination of esthetic/experiential and information items

letters for coding categories (A,B,C) are used to clarify one of the analyses on the next page

Preferred features of the Jellies-Drifters Gallery (continued)

OVERVIEW: Among the six esthetic features, families with children chose ‘the way jellies glow’ more often than adult-only groups. Families were *less* likely to choose ‘an art exhibit in motion’ and ‘seeing into another world.’ Visitors with at least a college degree prefer ‘they move so gracefully.’ Based on the overall coding of preferences, it is the least educated (high school, some college) and the most educated (graduate school) who are more likely to appreciate the informational content.

<u>Significant differences by group composition:</u>		<u>Adults</u>	<u>Families</u>
the way jellies look like they’re glowing	**	45%	64%
it’s like an art exhibit in motion	**	36%	22%
it’s like seeing into another world	**	23%	12%

<u>Significant differences by education:</u>		<u>Some College</u>	<u>College Graduate</u>	<u>Graduate School</u>
mysterious atmosphere created by lighting	**	31%	42%	10%
they move so gracefully	**	17%	31%	37%
	++			
(A) chose esthetic aspects ONLY		29%	48%	31%
(B+C) chose ANY informational aspects		71%	52%	69%

Asterisks (**) indicate statistically significant differences between columns of figures. For example, on this page the preferences of adult-only groups are different than the preferences of families.

Plus signs (++) denote borderline differences that are not quite significant at $p < .05$; they may be intuitively useful when interpreting other results.

B. Interest in a Second Jellies Exhibition

OVERVIEW: Among four suggested future exhibit topics, visitors were most interested in “efforts to save ocean wildlife” (79% had high or very high interest). “Jellyfish” had high appeal among 64% of visitors. Repeat visitors had more interest in jellies (72% high) compared to first-time visitors (51% high). The vast majority of visitors had high or very high interest in seeing another jellies exhibit today; this interest was equally strong among all types of visitors (first-time and repeat visitors, families with children and adults, people who liked the Outer Bay Drifters Gallery for esthetic reasons and people who liked it for informational plus esthetic reasons, etc.).

How interested are you in each of these ideas for exhibits?

	<u>Very High</u>	<u>High</u>	<u>Medium</u>	<u>Low</u>
efforts to save ocean wildlife	33%	46%	19%	2%
jellyfish	25%	39%	27%	10%
tropical sea life from Mexico	19%	37%	35%	9%
crabs	8%	28%	44%	20%

The new exhibit we’re planning downstairs will be about jellies.

If it were open now, how interested would you be in going down to see it?

very high	58%
high	31%
medium	10%
low	1%

C. Interest in Information about Jellies

C.1. Importance of information about jellies

OVERVIEW: Although esthetics are important to people’s experience of a jellies exhibit, some aquarium visitors believe it is even more important to present information. They expect to be educated during an aquarium visit. Non-college graduates believe that esthetics and information are both highly important. College graduates are more apt to believe that esthetics are less important than information.

Using a scale from 1 to 10, how important is it to you to have the exhibit be a beautiful setting, for example with mood music and special lighting?

	Overall Sample	not-college graduates	college graduates
high (9-10)	53%	65% **	45%
medium (7-8)	30%		
low (1-6)	17%		

On a scale of 1 to 10, how important is it to you to have the new exhibit present information about jellyfish, such as what they eat, how they sting, how they reproduce?

high (9-10)	64%	69%	61%
medium (7-8)	32%		
low (1-6)	4%		

Coding of esthetics vs. information

			++
rated esthetics at least 2 points higher	12%	15%	11%
rated information at least 2 points higher	30%	23%	35%
esthetics and information equally important	57%	62%	54%

C.2. Top-of-mind interpretive topics about the current Drifters Gallery

OVERVIEW: Visitors are very interested in the many different varieties, shapes and sizes of jellies. About three-quarters of the visitors could think of something interesting that they found out in the current Drifters Gallery, including how jellies catch food and move, why they are transparent, and how they light up. Visitors are also curious about where different jellies live and their life cycles.

What did you find out about jellyfish that was interesting to you? (in Jellies-Drifters Gallery)

27%	different varieties and sizes
14%	how they catch food and eat
11%	how they move
10%	how they function, biology, etc.
8%	transparency, clear
8%	how they light up
5%	how they sting
3%	how they reproduce
9%	other
16%	just watching them, how they look, beautiful
10%	blank, nothing

Do you have questions about jellies that we could answer in this new exhibit?

9%	about different varieties and sizes
8%	where they live
5%	how they grow, the life cycle
4%	how they catch and eat food
4%	how they reproduce
4%	about biology and function
3%	how they sting
2%	how they light up
10%	other
2%	just watching, how they look
63%	blank, nothing

C.3. Interest in proposed interpretive/informational topics

OVERVIEW: The informational topic with highest appeal is ‘all about stinging.’ Visitors also expressed interest in ‘seeing the range of habitats where jellies live’ and ‘learning why they will still be here when everything else is gone.’ One of the topics — people eating jellies — seemed to “turn off” some people. About two-thirds of the visitors said ‘very high’ to at least one of these ideas (one-third did not have very high interest in any of these topics). There appears to be a direct correlation between interest and the number of words in the topic description. There are very few notable differences between various segments of the audience.

Tell me your interest in each of the following types of information that could be presented in this new exhibit: (low, medium, high or very high interest)

	<u>Very</u>	<u>High</u>	<u>Medium</u>	<u>Low</u>
All about stinging — how they do it, which ones are dangerous, which ones sting so lightly that we wouldn’t even feel it	41%	39%	18%	2%
See the range of habitats where jellies live, from shallow muddy mangroves to icy ocean trenches; some attach to grass, some to rocks, most drift in the currents	23%	49%	24%	4%
Learn why they will be one of the animals that’s still here after everything else is gone (see how they’re such simple and hardy creatures)	28%	37%	32%	3%
Jellyfish have been on this planet since before the dinosaurs — see them in fossils	23%	37%	27%	12%
How do they know what they’re doing if they don’t have eyes?	19%	44%	31%	6%
Do people eat jellies, and how are they prepared?	16%	31%	30%	23%
What animals eat jellyfish?	15%	38%	42%	5%

D. Interest in Ambiance of an Exhibition

OVERVIEW: Among the eight photos representing possible exhibit design ideas, two were clearly more appealing to visitors — the jelly in mangrove roots and the swarm of moon jellies. People liked the jelly-in-the mangrove roots scene mostly because of the size and the realistic natural habitat. The moon jellies are appealing because there are many live animals to look at, and the colors and lighting are pleasing.

Would you have any preferences about the design and atmosphere of the new exhibit? Looking at these photos, what would be your top 3 or 4 choices among these ideas about the way the exhibit looks and feels?

	<u>First Choice</u>	<u>Second Choice</u>	<u>3rd & 4th Choices</u>	<u>Total Chosen</u>
A: small bezel tank w/ plants & jellies	8%	4%	14%	27%
B: “big blue” space with models overhead	10%	11%	14%	35%
C: polyps with hand-operated magnifier	16%	13%	16%	45%
D: phases of moon jelly exhibits w/ Galaxy Theatre in background	6%	5%	11%	22%
E: swarm of moon jellies w/ colorful lighting	23%	32%	11%	67%
F: large jelly in mangrove roots	34%	27%	18%	79%
G: jellyfish lakes in Palau	1%	4%	11%	16%
H: “planet full of mysteries” wall of flappers	1%	2%	8%	11%

Significant differences

Chose B: “big blue” space
 ** 44% of adult-only groups
 25% of families with children

Chose G: jelly lakes in Palau
 ** 14% of whites
 28% of other ethnic groups

A: Bezel tank *Why does that one appeal to you?* (17 comments)

Get a good look at jellyfish, visual tank

Close up

You can walk around it

Lots of people can see it from all sides

B: “Big Blue” space *Why does that one appeal to you?* (20 comments)

Different media, lighting, jellies hanging

Close up stuff is best

Lighting, group can see better

The feeling of depth and continuation of the sea

It's open, you can see jellies clear and distinct

Like that you can't see where it begins and ends

C: Polyps with magnifier *Why does that one appeal to you?* (30 comments)

Full view and microscopic view, interactive

Show them up close

Like magnifier to see creature without harming it

Being able to see various ones, especially live

Can see detail better

You can see the really small things

Very striking, looks like a piece of art

Interactive

D: Phases of moon jellies *Why does that one appeal to you?* (11 comments)

Looks like well presented information, easy to read

Could see the whole progress

Getting more information

E: Swarm of moon jellies *Why does that one appeal to you?* (42 comments)

The size of exhibit

How jellies look

Like to look in

Colors, atmosphere, groups, interactions

See everything at once

Seems like the most natural surroundings, at your face

Different view of it

Most interesting looking

Shows lots of jellyfish

Full picture looks good

It has a lot of color and depth

Color

Like seeing massive numbers of creatures, looks natural

F: Jelly in mangrove roots Why does that one appeal to you? (57 comments)

Largeness of it, easy to see exhibit

Never seen that kind

Looks more real

Close to natural setting

Way it looks, close up looks better

Big

Makes it look like you are there, more natural

Vastness of it, and natural environment

Looks as if I can get close

Right there, natural

Makes you feel like you are there, and beauty

Natural looking

Looks like you get to see them more natural in their habitat

Brightness, color

Better visual, see how they are working

Feels like you are there

It's real, visually realistic

Just like to see it, where it lives

G: Jelly lakes in Palau Why does that one appeal to you? (3 comments)

Up close and personal view, the jellyfish can't run off

Windows can get close to take pictures

Color and lighting, information

H: Wall of flappers *Why does that one appeal to you?* (2 comments)

Way information is presented, get information then see jelly
Because it's hands-on

E. Interest in Possible Exhibit Experiences

OVERVIEW: Aquarium visitors expressed clear preferences for exhibit experiences that involve seeing live animals (‘showing brightly lighted jellies’ and ‘seeing new types of jellies’) — a stronger interest than watching them on a video screen or participating in hands-on experiences (such as ‘feeling a jelly’ or ‘walking inside a huge model jelly’). There are no clear winners (or losers) among the four possible interactive experiences.

Would you have low, medium, high, or very high interest in these experiences in the exhibit?

	<u>Very High</u>	<u>High</u>	<u>subtotal VH+H</u>	<u>Medium</u>	<u>Low</u>
Seeing new types of jellies that you haven’t seen before	45%	45%	90%	9%	1%
Showing brightly-lighted jellies in dark surroundings	51%	38%	89%	10%	1%
Large video/TV showing deep sea jellies that can’t be kept in the aquarium	24%	40%	64%	28%	8%
Walking around inside a huge jellyfish (a life-like model)	30%	32%	62%	26%	12%
Feeling what a jelly is like (not a live one!)	23%	38%	61%	30%	9%
Interactive exhibits to find out more about how a jellyfish works	17%	41%	58%	37%	5%
Hands-on activities about the visual art, shapes & colors of jellies	16%	38%	54%	35%	11%

Significant differences

Very high interest in seeing new types of jellies:

- ** **56%** among visitors who have seen jellies previously at MBA
- 43% among visitors who have seen jellies exhibits elsewhere
- 35% among first time jellies viewers

Very high interest in hands-on activities about the visual art

- ** **31%** among non-whites
- 13% among whites

F. Demographics of the Sample

OVERVIEW: The sample for this study consisted of 195 aquarium visitors who had seen jellies in the Drifters Gallery on this visit. This sample is reasonably representative of the aquarium's typical spring audience: more than half are first-time visitors, two-thirds are California residents, more than half are adult-only groups without children, and a majority are college graduates.

Familiarity with the Aquarium

first-time visitor	60%
visited 1-2 times before	27%
visited 3 or more times	13%

Prior experience with jellies

first time seeing jellies today	39%
saw jellies previously at MBA	37%
saw jellies previously elsewhere, not at MBA	24%

Residence

Monterey County	7%
San Francisco Bay area	26%
other California	36%
other states	25%
foreign countries	6%

Group composition

adults-only	59%
family with ANY preschoolers	14%
family with school-age children ONLY	27%

Group size

one	2%
two	47%
three	18%
four	18%
five or more	15%

Age of adult interviewed

18-24	11%
25-29	12%
30's	21%
40's	35%
50's	15%
60+	6%

Ethnic heritage

white/Caucasian	83%
Hispanic/Latino	9%
Asian American	5%
African American	1%
others	2%

Education

high school	13%
some college	25%
college graduate	35%
graduate school	27%

Gender

man	47%
woman	53%

Environmental orientation

active supporter	15%
very interested but not active	69%
somewhat interested	14%
not very interested	2%

Belong to nature organizations

yes, such as:	39%
WWF	8%
other National organizations, EDF, NWF	4%
state & local organizations	2%
Humane Society, PETA, Save the Wolves, etc.	9%
Ducks or Trout Unlimited	1%
Greenpeace	4%
Audubon Society	2%
Sierra Club	8%
Nature Conservancy	4%
Yosemite	1%
various others	9%
blank	
aquariums, zoos, museums only	7%
no	54%

Day of the Week

weekdays	36%
weekends	64%