

University of Puget Sound Sound Ideas

All Faculty Scholarship

Faculty Scholarship


Summer 8-2008

W.W. Seymour Botanical Conservatory, Visitor Engagement Study, Summary of Findings,

Amy E. Ryken

University of Puget Sound, aryken@pugetsound.edu

Follow this and additional works at: http://soundideas.pugetsound.edu/faculty_pubs

 Part of the [Leisure Studies Commons](#), [Science and Mathematics Education Commons](#), and the [Science and Technology Studies Commons](#)

Citation

Ryken, Amy E., "W.W. Seymour Botanical Conservatory, Visitor Engagement Study, Summary of Findings," (2008).

This Article is brought to you for free and open access by the Faculty Scholarship at Sound Ideas. It has been accepted for inclusion in All Faculty Scholarship by an authorized administrator of Sound Ideas. For more information, please contact soundideas@pugetsound.edu.

**W.W. Seymour Botanical Conservatory
Visitor Engagement Study
Summary of Findings
August 2008**



Amy E. Ryken, Ph.D.
Associate Professor
University of Puget Sound
aryken@ups.edu

Table of Contents

| | |
|---|-------|
| Background | 3 |
| Visitor Survey: Summary of Findings | |
| Why I Visit | 3 |
| What I Learned | 4 |
| My Visit History | 5 |
| My Views on Conservatory Fees and Conditions | 6-7 |
| My Suggestions | 7 |
| Observation of Visitor Behavior: Summary of Findings | |
| Length of Visit | 8 |
| Focus of Visit | 8 |
| Visitor Demographics | 9 |
| Visitor Interactions | 10 |
| Visitor Engagement with Educational Resources | 11 |
| Questions for Consideration | 12 |
| References | 13 |
| Appendices | |
| Appendix A: Visitor Engagement Survey | 14-15 |
| Appendix B: Survey Results for “Why I Visit” | 16 |
| Appendix C: Mission Statements of Other Conservatories | 17 |
| Appendix D: Survey Results for “What I Learned” | 18 |
| Appendix E: Comparison of Fees and Facilities/Resources | 19 |
| Appendix F: Survey Results “Visitor Suggestions” | 20-22 |
| Appendix G: Examples of Visitor Interactions | 23 |

W. W. Seymour Botanical Conservatory Visitor Engagement Study

Background

During my sabbatical (January-August 2008) I studied visitor engagement at the W.W. Seymour Botanical Conservatory. This document contains the key findings from my research, including a summary of survey findings and a summary of findings based on observations of visitor behavior. Considering the findings from both methods gives a rich picture of visitor engagement at the conservatory. In addition, I made field visits to a range of conservatories in North America and the United Kingdom (see www.youtube.com/Conservatory2 for vodcasts of my findings); that research was supported by the University of Puget Sound John Lantz Sabbatical Enhancement Award.

Visitor Survey: Summary of Findings

Marina Becker, Mary Anderson, and I met in January 2008 to develop a survey (Appendix A) to better understand the needs and interests of Conservatory visitors. The survey was available at the conservatory for six months from February through July 2008; visitors who completed the survey received a free conservatory postcard. A total of 172 visitors completed the survey; data was then entered into an Excel spreadsheet and analyzed using SPSS. In this section of the report the findings are organized by survey question.

“Why I Visit”

The first question asked visitors to rank their reasons for visiting the conservatory. I organized the data in two ways; first looking at only visitors' number one rankings and then looking at their top three rankings (see Appendix B for complete data table). In both cases the same three reasons for visiting were identified:

- to look at flower displays (41.9% rank as top choice; 72.2% rank in top 3)
- to be in a peaceful setting (40.1% rank as top choice; 61.0% rank in top 3)
- to be in a garden setting (39.5% rank as top choice; 68.6% rank in top 3)

Interestingly, statements that contained the word “learn” were ranked amongst the lowest reasons for visiting the conservatory.

- to learn about plants (16.9% rank as top choice; 23.8% rank in top 3)
- to learn about the environment (8.7% rank as top choice; 11.0% rank in top 3)

These findings are consistent with other studies of the attitudes of botanic garden visitors. Visitors typically rate the restorative features of the garden setting as more important than learning about plants or conservation issues (Ballantyne et al, 2007; Connell, 2004). Visitors value natural settings for restorative features such as being away from everyday scenery and being immersed in a different world (Herzog, Maguire, & Nebel, 2002; Scopelliti & Giuliani, 2004).

“What I Learned”

Following the first question, the survey asked visitors to reflect on the conservatory’s mission statement and draw a picture and/or write about, “How the conservatory contributes to your understanding of the natural world.” These written responses were coded for primary, secondary, and tertiary messages. Thirty of the surveys were recoded by a second reviewer with an acceptable inter-rater reliability of 91%. Because only one-third of responses were coded to contain three different messages, I organized the data looking at the top two messages.

Although nine messages were identified in visitor drawings, writing, and questions (see Appendix D for complete data table), the majority of visitors focused on one message—beautiful setting. Peaceful setting and flowers were also noted by a large number of visitors. Examples of visitor responses to “What I Learned” are below.

| Message | Examples of Visitor Responses |
|--|--|
| Beautiful Setting 41.9% of respondents 72/172 | “How beautiful nature truly is. It shows people the beauty of life and nature here in the middle of a city.” “It is so beautiful. This beautiful place—which makes me feel overwhelmed over the beauty.” “The beauty of this spot, especially in the grey Tacoma winter.” |
| Peaceful Setting 21.5% of respondents 37/172 | “To enjoy the simple pleasures—and cherish the restful pauses in life’s hectic pace. This is a precious gem.” “The conservatory is housed in a most extraordinary structure. The enclosed greenhouse with its center dome is a peaceful oasis of green, with the gentle sound of flowing water. Various orchids, lilies, mums, and so much more all magnify the full richness of nature. The variety is stunning, the colors take your breath away! What a marvelous way to re-charge your soul!” |
| Flowers 20.3% of respondents 35/172 | “The rotating floral display. It helps me have more ideas about seasonal plants and color groupings.” “Dramatic setting for beautiful flowers. e.g. your entryway is done up in red/white/blue for July 4.” “Beautiful flowers!” |

Similar to the ranking of reasons for visiting the conservatory, visitors rarely wrote about the environment and were more likely to mention flowers than tropical plants. Interestingly, 11.0% of visitors wrote responses that included spiritual references (e.g., citing God and/or creation).

“My Visit History”

Visitors characterize their visit history; sixty five percent (65%) of survey respondents reported that they came to the conservatory in a group of adults, 23.8% reported that they came to the conservatory alone, and 11% reported that they came to the conservatory with children.

I examined family grouping in relation to their reported learning and found no differences between the three types of groups.

I examined visitors’ home zip codes in relation to whether or not they had planned to visit or had just happened by the conservatory. Visitors who live in Tacoma are as likely to plan their visit (23.2%) as to happen by (23.8%). Not surprisingly, visitors who live in Tacoma are more likely to happen by compared to visitors who live outside Tacoma (11.3% happen by; 41.6% plan their visit).

I also examined zip codes in relation to frequency of visits to the conservatory. No visitors report visiting daily. Not surprisingly, visitors who live in Tacoma are more likely to visit weekly and monthly, than visitors who live outside Tacoma.

| Frequency of Visits | Live Within Tacoma | Live Outside Tacoma |
|------------------------------|---------------------------|----------------------------|
| Daily | 0% 0/127 | 0% 0/127 |
| Weekly | 8.6% 11/127 | 0% 0/127 |
| Monthly | 15.7% 20/127 | 9.4% 12/127 |
| Once every 3-6 months | 19.6% 25/127 | 17.3% 22/127 |
| Yearly | 9.4% 12/127 | 18.1% 23/127 |

The survey was completed by 59 first time visitors. These first time visitors identified a number of ways that they learned about the conservatory, including:

- word of mouth from family members, friends, or Metro Parks staff members (32%, n=19)
- happened upon it walking by (22%, n=13)
- the Internet (10%, n=6)
- publicity like articles in the News Tribune (6.8%, n=4) and Cisco’s TV show (5.1%, n=3)
- tourist information such as Visitor Center (5.1%, n=3), AAA guide (3.4%, n=2), and Tacoma Visitor magazine (6.8%, n=4)

Returning visitors indicated they came back for the beauty and to see flowers in bloom.

“My Views on Conservatory Fees and Conditions”

The survey asked visitors to recommend a fee between \$0 and \$5, to state how the selected fee might impact their visiting schedule, and to evaluate the conditions of the conservatory.

Appendix E contains a comparison of conservatory resources to fees for other conservatories I have visited.

I examined the relationship between proposed fees and their impact on visit frequency. There appears to be a fee threshold of between \$1 and \$3.

| Fee Level & Impact | Percent and Number of Respondents |
|--|--|
| Recommended \$0 fee | 20% 28/138 |
| Recommended \$1 to \$3 fee No impact on visit frequency | 37% 51/138 |
| Would visit less frequently | 27% 37/138 |
| Would not visit | 3% 4/138 |
| Recommended \$5 fee No impact on visit frequency | 9% 13/138 |
| Would visit less frequently | 3% 4/138 |
| Would not visit | 1% 1/138 |

I also examined the relationship between fee level and home zip code; I found no significant differences between respondents who live in Tacoma and those who live outside Tacoma to the \$1 to \$3 fee threshold.

Visitors (both those willing and unwilling to pay a fee) raised a number of factors to consider in relation to fees:

- Decreasing the ability of visitors to pop in (“e.g., A fee would squelch the possibility for folks just to pop in as they are strolling through the park.”)
- Special populations (e.g., “It needs to be free! Especially for elderly, and those with lesser incomes and children.”)
- Public Ownership (e.g., “Everyone deserves to have access to a resource like this, and I think that a fee would keep people from visiting.”)

- Support thorough taxes (e.g., “Don’t we already pay for the park through taxation?”)
- Support by shopping in the gift shop (e.g., “Some how it is wonderful it is free. I make a point of it to shop in the store.”)

There does not appear to be any significant visitor concern about the physical conditions of the conservatory facility. Visitors overwhelmingly evaluated the conservatory as being well maintained (93%), clean (91%), safe (87%), and accessible (89%).

“My Suggestions”

At the end of the survey visitors were asked to make suggestions and/or answer the question, “What would you like to see more of?” See Appendix F for a complete list of visitor suggestions. Many respondents (33.7%) left this space blank or used this space to praise the conservatory (15.1%) writing statements such as: “I’m happy with it the way it is.” “Just continue with your monthly changing displays and music events.” “Great place to meditate amid flowers and music.”

Only two issues were noted by more than 10% of respondents: adding additional plants and/or animals (n=37, 21.5% of respondents) and facilities (n=21, 12.2% of respondents).

- Visitors made specific suggestions for additional plants (e.g., orchids, exotic flowers, Hawaiian flowers), trees (e.g., banana, coconut, lime), and animals (e.g., more fish, birds, butterflies).
- In relation to facilities, visitors hoped the conservatory could be expanded (n=11, 6.3% of respondents), interestingly very few respondents noted the lack of a public restroom (n=3, 1.7% of respondents).

Observations of Visitor Behavior: Summary of Findings

In April I observed 85 groups of visitors (174 individuals) while in the conservatory. I distributed my observations across morning, mid-day and the afternoon on eight different days. Using an observation form I noted length of stay in the conservatory, the focus of the visit (e.g., flowers, tropical room), group composition (e.g. adults, adults with children), and visitor age, ethnicity and gender. I also took field notes about interactions within family groups. The observation data was entered into an Excel spreadsheet and analyzed using SPSS.

Length of Visit

Visitors explored the conservatory an average of 12 minutes. The range of visit time is broad with the shortest recorded time at 2 minutes and the longest recorded time at 50 minutes. Fifty-five percent of visitors stayed between 1-10 minutes, 41% of visitors stayed between 11-30 minutes, and only 3.5% of visitors stayed over 30 minutes.

Focus of Visit

For each visitor group I noted the area of the conservatory where they spent most of their time. For 14.1 % of visitors no focus area was recorded because either their stay was too short (under three minutes) or they spent an equal amount of time across two or more areas.

| Conservatory Area | Visitor Focus % of Visitors Who Focused Visit Time in This Area |
|--------------------------|--|
| Tropical Room | 30.6% |
| Gift Shop | 24.7% |
| Flower Alley | 17.6% |
| Koi Pond | 12.9% |

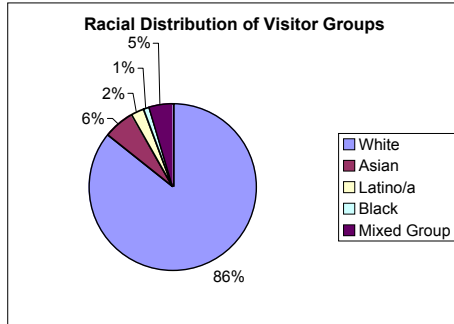
In contrast to the survey, in which a large number of visitors (72%) indicated their primary reason for visiting the conservatory was to see flower displays, my observations indicate that one third of visitors spent most of their visit time in the tropical room. It is also important to note that one quarter of visitors spent more time in the gift shop than exploring the plant collection.

I also examined the relationship between the composition of the visitor group (e.g., adults, adult/child, and adolescents) and the focus area and found that 81.8% of adult/child groups focused on the koi pond, compared to only 18.2% of adult groups. This is a significant difference and suggests that the koi pond is a very important feature of the conservatory to families with children.

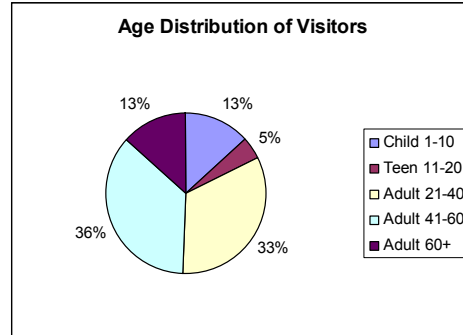
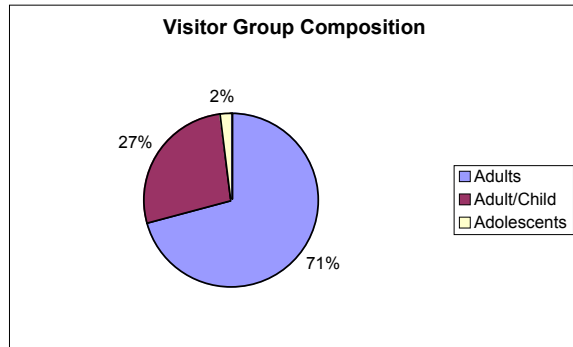
Visitor Demographics

Based on my observations, visitors to the conservatory appear to be:

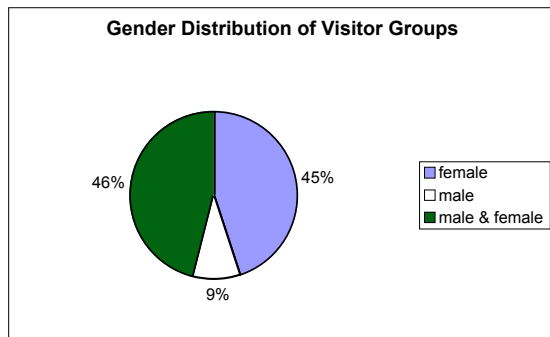
primarily white (85.9% of observed visitors)



adults over 20 years old (82.2% of observed visitors)




women (44.7% of observed visitors) or groups of women and men (45.9% observed visitors)




Visitor Interactions

It is well documented that learning in museums, such as botanic conservatories, is highly social; visitors interact with each other in family groups, with docents, with museum staff, and with displays (Diamond, 1999; Falk & Dierking, 2000). Seventy-three percent (73%) of the observed visitors came to the conservatory with at least one other person (27% of observed visitors came alone). More interesting than a quantification of visitor demographics are the details of what visitors discussed and noticed while in the conservatory. Visitors typically commented on the beauty of a plant or the conservatory environment, noted obvious features of the plant (e.g., color, size, shape), and used their own experiences to make connections. See Appendix G for two additional examples of visitor interactions.

| Man and Woman (50's) looking at lemon tree | |
|---|---|
| Man: Is that papaya? Woman: Lemon. Man: Lemon? Really? Woman: Wow. Look how big they are. Isn't it beautiful in here? |  |

Here these adult visitors, noticing the large lemons, wonder aloud what the plant is and comment on the beauty of the conservatory setting.

| Mother (30's) and son (8) looking at staghorn fern | |
|---|--|
| Mother: Isn't that awesome? Son: Yes, let's take a picture of that one. Mother: You like that one? Son: Yeah Mother: It looks like a beehive. It's so pretty in here. It's nice to see some pretty things; to be surrounded by beauty. Beautiful, beautiful plants aren't they? |  |

Here a mother noticed what her son was looking at, and picking up his interest modeled how to express awe (e.g., “awesome” and “surrounded by beauty”) and how to describe relationships (e.g., “it looks like a beehive”).

Visitor Engagement with Educational Resources

It is well documented that few museum visitors read interpretative labels (Diamond, 1999; Falk & Dierking, 2000). Consistent with this trend, conservatory visitors rarely read available interpretative signs/materials. I observed only seven groups (8.2% of observed visitors) reading the material—the majority read the common name of the labeled plants aloud. While the survey did not specifically ask about educational material, only 3.5 % of respondents mentioned written interpretative materials. The majority of these respondents mentioned the tea posters which were uncharacteristically on display within the floral displays. Staff are another important educational resource; 4.7% of observed visitors interacted with staff and 1.7% of survey respondents mentioned interactions with staff (the majority focused on plant care/growing information).

Questions for Consideration

Metro Parks staff, the Conservatory Foundation Board, and the Conservatory Education Committee would benefit from discussing the findings of this report. Below I suggest a few issues and questions to foster dialogue about future directions for the conservatory.

The conservatory's mission statement is "to promote the connection between people and the natural world." (See Appendix C for a range of conservatory/botanic garden mission statements). However, visitors have a wide range of responses to their conservatory experience:

"The fact that you must be breeding the flowers to be BIG. BIGGER is NOT Better. Why so BIG? It's not natural."

"I just like to experience spring all year round. It's totally a sensory experience—I don't care about learning, only experiencing."

"It always reminds me of the vast and beautiful diversity in the plant kingdom and how important it is to conserve it."

- What types of connections do we hope to foster?
- Does the mission statement reflect the unique resources of our conservatory?
- How might we make visible humans contradictory relationships to nature?
- How might we support ongoing visitor talk back?

Conservatory visitors explore the conservatory for an average 12 minutes, with 55% of visitors exploring the conservatory for 10 minutes or less. In addition, very few visitors read interpretative material or rank either education or events as important reasons for visiting.

- Given the limited staff resources of the conservatory, what is the appropriate focus for educational activity?
- What enduring understanding might focus educational activity?
- What are the pros and cons of providing interpretative information versus posing visitor reflection questions?

Conservatory visitors overwhelmingly highlight beauty, not learning about plants or the environment, as an important feature of the conservatory visit experience.

- What educational initiatives might reinforce visitor interest in aesthetics?
- How might we make visible the human manipulation of plants?

References

- Ballantyne, R., Packer, J., & Hughes, K. (2007). Environmental awareness, interests and motives of botanic gardens visitors: Implications for interpretive practice. *Tourism Management*, 29, 439-444.
- Connell, J. (2004). The purest of human pleasures: The characteristics and motivations of garden visitors in Great Britain. *Tourism Management*, 25, 229-247.
- Diamond, J. (1999). *Practical evaluation guide: Tools for museums and other informal educational settings*. Walnut Creek, CA: AltaMira Press.
- Falk, J. H., & Dierking, L. D. (2000). *Learning from museums: Visitor experiences and the making of meaning*. Walnut Creek, CA: AltaMira Press.
- Herzog, T. R., Maguire, C. P., & Nebel, M. B. (2003). Assessing the restorative components of environments. *Journal of Environmental Psychology*, 23, 159-170.
- Scopelliti, M., & Giuliani, M. V. (2004). Choosing restorative environments across the lifespan: A matter of place experience. *Journal of Environmental Psychology*, 24, 423-437.

Appendix A
Visitor Engagement Survey
W. W. Seymour Botanical Conservatory

Why I Visit

Rank your reasons for visiting the conservatory (1=primary reason for visiting). Only rank items that are important to you.

- ___ to be in a garden setting
- ___ to look at flower displays
- ___ to shop in the gift shop
- ___ to be in a peaceful setting
- ___ to show out of town guests
- ___ to have a family outing
- ___ to look at the tropical plants
- ___ to attend events
- ___ to learn about plants
- ___ to learn about the environment
- ___ other _____



What I've Learned

In the box below draw a picture and/or write about how the conservatory contributes to your understanding of the natural world.

On my visit today,
I thought about . . .

I had questions or wondered about . . .

My Visit History

My zip code _____

For today's visit to the conservatory I . . . ___planned to come ___happened by

Today I came to the conservatory . . . ___alone ___with children ___with adults

Estimated number of times I've visited this conservatory _____

How often do you visit? Check one.

___ daily ___ once a month ___ once every 6 months
___ once a week ___ once every 3 months ___ once per year

Returning Visitor?
What brings you back?

First Time Visitor?
How did you hear about the conservatory?

My Views on Conservatory Fees and Conditions

Currently visiting the conservatory is free; which suggested donation fee below would you be willing to pay? ___ \$5 ___ \$3 ___ \$1 ___ \$0

If there were a fee, how might it impact how often you visited the conservatory?

Circle the appropriate phrases below to describe the conditions of the conservatory.

The conservatory is . . .

not maintained . . . moderately maintained . . . well maintained
not clean . . . moderately clean . . . clean
not a safe place . . . moderately safe . . . safe
not physically accessible. . . moderately accessible . . . accessible

My Suggestions

What you would like to see more of?

Appendix B
Survey Results: Why I Visit

“Rank your reasons for visiting the conservatory (1=primary reason for visiting). Only rank items that are important to you.”

| Survey Prompt | Rank=1 Percent and Number | Rank=1, 2 or 3 Percent and Number |
|---------------------------------------|------------------------------|---|
| to look at flower displays | 41.9% 72/172 | 72.7% 125/172 |
| to be in a peaceful setting | 40.1% 69/172 | 61.0% 105/172 |
| to be in a garden setting | 39.5% 68/172 | 68.6% 118/172 |
| to look at the tropical plants | 25.6% 44/172 | 40.1% 69/172 |
| to show out of town guests | 19.2% 33/172 | 24.4% 42/172 |
| to learn about plants | 16.9% 29/172 | 23.8% 41/172 |
| to have a family outing | 13.4% 23/172 | 18.0% 31/172 |
| to shop in the gift shop | 11.6% 20/172 | 20.9% 36/172 |
| to learn about the environment | 8.7% 15/172 | 11.0% 19/172 |
| to attend events | 8.1% 14/172 | 11.6% 20/172 |
| other | 19.2% 33/172 | Reasons listed by visitors include: walking, pleasant smells, and to see glass art. |

Total responses in each column sum to more than 100% because some respondents gave multiple prompts the same ranking.

Appendix C
Mission Statements of Other Conservatories

| Garden/Conservatory | Mission Statement |
|--|--|
| W.W. Seymour Botanical Conservatory Tacoma, WA | to promote the connection between people and the natural world |
| Allan Gardens Conservatory Toronto Botanical Gardens Toronto, Canada | to be a place of horticultural excellence; a place for educational opportunities and community gatherings; and an engine of attraction for both the community and the City of Toronto |
| Brooklyn Botanic Garden Brooklyn, NY | <p>to serve all the people in its community and throughout the world by</p> <ul style="list-style-type: none"> --Displaying plants and practicing the high art of horticulture to provide a beautiful and hospitable setting for the delight and inspiration of the public. --Engaging in research in plant sciences to expand human knowledge of plants, and disseminating the results to science professionals and the general public. --Teaching children and adults about plants at a popular level, as well as making available instruction in the exacting skills required to grow plants and make beautiful gardens. --Reaching out to help the people of all our diverse urban neighborhoods to enhance the quality of their surroundings and their daily lives through the cultivation and enjoyment of plants. --Seeking actively to arouse public awareness of the fragility of our natural environment, both local and global, and providing information about ways to conserve and protect it. |
| Royal Botanic Garden, Kew London, United Kingdom | to inspire and deliver science-based plant conservation worldwide, enhancing the quality of life |
| United States Botanic Garden Washington, D.C. | to collect, cultivate, and distribute |
| Volunteer Park Conservatory Seattle, WA | to cultivate, promote and inspire knowledge and appreciation of plants through exhibits, education and interpretative programs. |

Appendix D
Survey Results: What I Learned

“Draw a picture and/or write about how the conservatory contributes to your understanding of the natural world.”

“On my visit today, I thought about . . . and I had questions or wondered about . . .”

| Code Sample Visitor Response | Primary or Secondary Message in Visitor Responses Percent and Number |
|---|--|
| Beauty “An abundance of beauty in every corner of the world.” | 41.9% 72/172 |
| Peaceful “How peaceful it was and how the plant life is blended around you.” | 21.5% 37/172 |
| Flowers “I really enjoyed the orchids and how to care for them. The hyacinths smelled lovely.” | 20.3% 35/172 |
| Plant Knowledge “Spanish moss is related to pineapple. . . and you <u>can</u> grow figs in the Pacific Northwest.” | 16.3% 28/172 |
| Variety “Even though the flowers may be the same type they are still not all the same, like snowflakes, trees, rocks. . .” | 13.4% 23/172 |
| Environment “I believe that understanding our world and natures powers over the weather and natural balance of the ecosystem is more than important with the threat of losing it to our lack of gratefulness for its beauty.” | 13.9% 24/172 |
| Spiritual/God “I do not really understand a lot about the natural world, but I love the beautiful plants and the fish. I think that humans were meant to approach the beauty of flowers, plants, and animals and to live in harmony with these things and to love them. This conservatory, to me, reflects the boundless love of God and his love in His creation. I feel God’s love here in his creation.” | 11.0% 19/172 |
| World “I am always amazed at all of the gorgeous plants from around the world—and how they love it here.” | 10.5% 18/172 |
| Tropical Plants “I live in an apartment with no garden/growing space. I enjoy all the tropical plants and reading the info cards placed around.” | 9.3% 16/172 |

Appendix E
Comparison of Fees and Facilities/Resources

| Garden/Conservatory | Fee | Resources |
|--|--|--|
| W.W. Seymour Botanical Conservatory Tacoma, WA | Free | 3000 ft ² Conservatory features a tropical room and seasonal floral displays. |
| Allan Gardens Conservatory Toronto, Canada | Free | 16,000 ft ² Conservatory features palm house, tropical plants, cacti, and seasonal plantings. |
| Brooklyn Botanic Garden Brooklyn, New York | \$8 (adults) \$4 (seniors and youth 12+) Free (children under 12) | 52 acres Conservatory features 6 galleries: desert, tropical, temperate, bonsai, aquatic house, and evolution. |
| Conservatory of Flowers San Francisco, CA | \$5 (adults) \$3 (seniors and youth 12-17) \$1.50 (children 5-11) | Conservatory features 5 galleries: lowland tropics, highland tropics, aquatic plants, potted plants, special exhibits. |
| New York Botanical Garden New York, New York | \$13 (adults) \$11 (seniors) \$5 (children 2-12) | 250 acres America's largest Victorian glasshouse (one acre) features 11 habitats including palms, two types of rainforests, two types of deserts, aquatic plants, and seasonal displays. |
| Royal Botanic Garden, Kew London, United Kingdom | \$26 (adults) \$14 (seniors and students 17+) \$Free (children under 17) | 300 acres Features 7 conservatories/houses: palm, temperate, alpine, tropics, water lilies, evolution, bonsai. |
| United States Botanic Garden Washington, D.C. | Free | 29,000 ft ² Conservatory features 15 galleries: garden court, jungle, Hawaii, world deserts, southern exposure, garden primeval, medicinal plants, orchids, plant exploration, rare and endangered, plant adaptations, plants and culture, how plants work, children's garden. |
| Volunteer Park Conservatory Seattle, WA | Suggested donation \$3 | 6,200 ft ² Conservatory features 5 houses: cacti house, bromeliad house, fern house, palm house, seasonal display house. |

Appendix F
Survey Results: Visitor Suggestions


At the end of the survey visitors were asked to make suggestions and/or answer the question, “What would you like to see more of?”

| Suggestion Category | Example Visitor Responses |
|---|---|
| <p>Left Space Blank 33.7% (n=58)</p> | <p>NA</p> |
| <p>Praised the Conservatory 15.1% (n=26)</p> | <p>--I think it is wonderful. --Nothing—it is beautiful. --I’m happy with it the way it is. --Keep it up!</p> |
| <p>Additional Plants/Animals 21.5% (n=37)</p> <p>Flowers 12.8% (n=22)</p> <p>Aquatic Displays 3.5% (n=6)</p> <p>Trees 2.9% (n=5)</p> <p>Other 2.3% (n=4)</p> | <p>--Change the orchids that are not blooming with something that is. --Hibiscus and datura --Some plumeria plants and hibiscus. --Moth orchid flowers --Ginger plants --Hawaiian flowers --Asian plants --Orchids, palm trees, roses, more Hawaiian type flowers --Posies --More orchids and roses --Exotic and unusual plants --Tiger Lily --Native and zoned plants --Tall and hanging plants</p> <p>--Water plants --More aquatic displays (e.g., African aquatic frogs) --Fish --More koi pond</p> <p>--Palms --Banana tree --Coconut tree --Lime tree --Citrus</p> <p>--Have you considered adding butterflies? --Birds and butterflies</p> |


| | |
|--|---|
| <p>Facilities 12.2% (n=21)</p> <p>Expansion/More Space 6.4% (n=11)</p> <p>Restroom 1.7% (n=3)</p> <p>Other 4.1% (n=7)</p> | <p>--An expansion—more space for education programs --Expanded room. More conservatory= more pleasure, more peace. --Expansion of the glass structure to make the gardens bigger. --More space for flowers and plant displays; more sitting areas --I love the conservatory!! I wish it were much larger! --More space for more and more varieties --More rooms for more plants. --More greenhouses to visit. --Additional space for plants and waterfalls. --Make it bigger. --More conservatory.</p> <p>--A public bathroom. --A nice convenient restroom. --Bathrooms near would be good.</p> <p>--A bench or seating near the fish. --Complimentary coffee. --Clean the copper signs in front of the building on a regular basis. --The donation jar was not easy to spot. --1-way flow to exit (no doubling back—helps with accessibility) --A fountain inside --More statuary</p> |
| <p>Information 5.8% (n=10)</p> | <p>--More descriptions of orchids. --More information posted about different plants. --A little more information displayed about species. --Information signs like the one at the Sulawesi orchid. --More labels on the various plants. --Easily visible labels on the plants. --Better labeling of seasonal plants. --Label more plants and make plant labels more visible. --More information about the glass program. --Voluntary subscription online/by mail</p> |
| <p>Glass Art 4.1% (n=7)</p> | <p>--Glass—especially from the northwest; repeat the Hilltop experience and use individual artists as well. --The glass display is brilliant. --The glass work distracted from the natural beauty of the foliage and created a cluttered look. --The Hilltop glass is great—could there be more complimentary and appropriate mediums used? --Art installations—sculpture—contemporary art. --Glass with the flowers. --Blown glass.</p> |

| | |
|---|---|
| <p>Sound 2.9% (n=5)</p> | <p>--Music overhead, bird sounds. --I prefer there not be piano music and just listen to the sounds within the conservatory's environment. --More music would be nice. --Music by volunteers (classical, jazz, country) would be outstanding. --More musicians.</p> |
| <p>Things for Sale 2.3% (n=4)</p> | <p>--\$1 items in the gift shop. --Plants for sale that are grown in the conservatory. --Plant sales of special plants on display. --Propagation of orchids for sale.</p> |
| <p>Events/Education 1.7% (n=3)</p> | <p>--Special events—getting the community involved similar to the HART project. --Programs for families and children. --An occasional garden lecture or talk on conservation of natural places.</p> |
| <p>Advertisement 1.7% (n=3)</p> | <p>--Advertise the conservatory on KPLU. --Better publicized community events including fundraisers for the conservatory. --Not sure how often there are fundraisers. Is there a group similar to friends of the library?</p> |

Appendix G
Examples of Visitor Interactions

| Mother, Father (30's) and Son (3) looking at koi pond | |
|--|--|
| <p>Son: I like those fish. I want to catch all those fish.</p> <p>Mother: All of them?</p> <p>Son: I can catch them all by myself.</p> <p>Mother: We have to leave the fish here for everyone to see because they are so pretty. We could name them. I'll call one white.</p> <p>Father: I'll call one red.</p> <p>Son: I'll call two red.</p> |  |

Many of the interactions at the koi pond included narrating the activity of the fish and/or describing the similarities and differences in the fish. Parents often modeled making observations. Here the parents redirect their son's interest in catching fish to noting the color of the fish.

| Adolescents (2 males) in Tropical Room | |
|--|--|
| <p>Teen 1: Japanese sago.</p> <p>Teen 2: I like that one.</p> <p>Teen 1: I guess that means it is from Japan.</p> <p>Teen 2: I've never seen a plant like that before.</p> <p>Teen 1: Spanish moss.</p> <p>Teen 2: Moss?</p> <p>Teen 1: Nerve plant.</p> <p>Teen 2: What does that mean?</p> <p>Teen 1: Maybe it has some nerve toxin in it.</p> |  |

This was one of very few occasions where I observed visitors reading interpretative labels. One teen read only the common names on labels aloud, sparking brief discussion as both teens worked to make connections to elements of the common name.