



## *Wings of the World*

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### Formative Evaluation Report

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## Background

With funding from the Institute of Museum and Library Services' (IMLS) Museums for America program, the Cincinnati Zoo & Botanical Garden (Zoo) has undertaken a process of improving the interpretive experience of its *Wings of the World* exhibit. This effort seeks to enhance families' connections to nature and inspire them to become better bird neighbors, which is in direct alignment with the Zoo's strategic planning.

In collaboration with the Zoo, the Lifelong Learning Group (LLG) conducted a formative evaluation, to be followed in Summer 2018 with a summative evaluation. The purpose of this formative study was to look for ways to increase the effectiveness of the exhibit components in achieving interpretive outcomes, to identify possible messages and activities that resonate among visitors, and to inform ongoing internal efforts of enhancing intergenerational learning.

## Evaluation Questions

Formative evaluation was framed by an overarching question: does *Wings of the World* facilitate learning and connecting with nature through family interactions? During the formative phase of this project, the evaluation team further articulated this question through three subquestions:

1. With what interactives did family groups choose to engage and why?
2. In what ways did participants engage with the interactives and why?
3. What might enhance the interpretations in ways that would increase family engagement and desired interactions?

## Methods

This study consisted of two concurrent efforts: (1) observation of visitors' interactions with specific exhibit components, followed by a short interview, and (2) a card sort and interview related to the overall experience of *Wings of the World*. For each of the target exhibit components, a member of the evaluation team stood in an unobtrusive spot to observe people entering the adjacent area. For each instance of a group stopping in that area, an observer took a combination of structured and open-ended notes on whether and how the group engaged with the target interactive and recorded the time of engagement and composition of the group. After the group moved to leave the area, the observer approached the group and invited them to share their thoughts about the interactive element. The more holistic card sort and interview was intended to capture major impressions and decision-making related to the exhibit area as a whole, as well as which aspects of the exhibit were most and least attractive to family audiences and what interpretive messages visitors took away from their experiences. Recruitment for this aspect of the study occurred just outside the primary exit (see Appendix B: Study Instruments).

## Data Collection and Sample Description

The data collected for this study reflect a convenience sample of intergenerational family groups (i.e., parties with at least one adult and at least one child not participating in a group program) who

were present in or exiting the *Wings of the World* exhibit area on April 20-21, 2018. In light of the target audience for written interpretation in *Wings of the World*, recruitment favored groups that included a child aged 8 years of age or older. Overall, the evaluation team, which included two members of the Zoo staff, collected data from 12 family groups who engaged in some way with the Guess Who? interactive, from 27 family groups who engaged in one or more of the interactives in the Migration Game, and from 22 family groups as they exited on the boardwalk immediately outside the *Wings of the World* building.

Because this study examined intergenerational group learning, the data here are described in terms of visitor groups, rather than individual visitors; however, the demographic characteristics described below reflect the responses of a primary respondent for each group. Respondents to this study were most frequently between the ages of 30-49 years, non-Hispanic and white, female, and accompanied by children 5-12 years of age. For the most part, visitors reported coming to the Zoo at least 2 times per year and maybe in excess of 5 times per year, and a strong majority of respondents were Zoo members. Demographic characteristics did vary slightly depending on which *Wings of the World* component the data reflected. For example, almost no males stopped to engage with the Guess Who? interactive, yet male respondents represented almost half of the visitors we surveyed for the exit interview and the Migration Game. The full demographic breakdown, organized by the location of data collection, can be found in Table 1.

Table 1. Profile of group composition, ages, and visitation experience of the sample

|   |                                     | Frequencies                 |                      |                             |
|---|-------------------------------------|-----------------------------|----------------------|-----------------------------|
|   |                                     | Exit<br>Interview<br>(n=22) | Guess Who?<br>(n=12) | Migration<br>Game<br>(n=27) |
| Number of groups with adults in each age group*   |                                     |                             |                      |                             |
|   | 18-20 years                         | 1                           | 0                    | 2                           |
|   | 20-29 years                         | 3                           | 2                    | 3                           |
|   | 30-39 years                         | 9                           | 8                    | 13                          |
|   | 40-49 years                         | 11                          | 2                    | 6                           |
|   | 50-59 years                         | 0                           | 2                    | 2                           |
|   | 60+ years                           | 2                           | 2                    | 2                           |
| Number of groups with children in each age group* |                                     |                             |                      |                             |
|   | Infant-< 2 years                    | 1                           | 2                    | 6                           |
|   | 2-4 years                           | 4                           | 5                    | 7                           |
|   | 5-7 years                           | 8                           | 8                    | 10                          |
|   | 8-12 years                          | 13                          | 3                    | 12                          |
|   | 13-17 years                         | 4                           | 1                    | 4                           |
| Gender  |                                     |                             |                      |                             |
|   | Male                                | 4                           | 1                    | 8                           |
|   | Female                              | 18                          | 11                   | 14                          |
| Racial/ethnic identity*                           |                                     |                             |                      |                             |
|   | African American/Black              | 1                           | 2                    | 2                           |
|   | Asian/Asian-American                | 0                           | 0                    | 3                           |
|   | Latino and/or Hispanic              | 0                           | 2                    | 1                           |
|   | White, Non-Hispanic                 | 21                          | 12                   | 16                          |
| Zoo member  |                                     |                             |                      |                             |
|   | Yes                                 | 18                          | 10                   | 15                          |
|   | No                                  | 4                           | 2                    | 6                           |
| Visitation experience                             |                                     |                             |                      |                             |
|   | Today is my first visit             | 2                           | 1                    | 1                           |
|   | I haven't visited for many<br>years | 0                           | 0                    | 1                           |
|   | Once every few years                | 0                           | 0                    | 1                           |
|   | About once a year                   | 2                           | 1                    | 2                           |
|   | 2-4 times per year                  | 4                           | 2                    | 8                           |
|   | 5+ times per year                   | 14                          | 8                    | 9                           |

*\*Due to sometimes having multiple ages of adults and children in one family group, the number of groups in each age range for parents and the number of groups in each age range for children will not equal the total number of participating groups. Similarly, categories of racial and ethnic identity were not mutually exclusive, so the sum of all counts may exceed the number of respondent groups.*

## Results

### Visitor Engagement

#### Key Takeaways

Unsurprisingly, visitors talked about *Wings of the World* in relation to their overall Zoo experience, and their reasons for stopping at this exhibit tended to relate to trying to see everything at the Zoo and/or a specific interest in birds. Once inside, visitors tended to find the aviaries and habitat spaces most interesting, but they also prioritized hands-on learning opportunities over those that appeared more static (e.g., the Charley Harper mural) and novel experiences over familiar ones.

Having a specific interest in birds was a primary reason for engaging with the Guess Who? interactive. Interest in birds was still an important reason that respondents chose to engage with the Migration Game interactives, but the newness of the space and encountering the interactives as “next” on navigation pathways were more frequent reasons for spending time in that area. For both Guess Who? and the Migration Game, children tended to lead family engagement, and the length of engagement with interactives tended to be affected by group dynamics and/or interest in other areas of *Wings of the World* or the Zoo in general.

#### Reasons for Visiting *Wings of the World*

Visitors who participated in data collection at each of the three areas in *Wings of the World* had different primary reasons for visiting the exhibit area (Table 2). The main reason for visiting for those who completed the exit interview ( $n=22$ ) was that they always tried to see everything when they visited the Zoo. For visitors observed in Guess Who? ( $n=12$ ), the main reason for their visit to the exhibit was that someone in the group was interested in birding. While interest in birds was also a major factor for visiting the exhibit for respondents observed in the Migration Game, it was not nearly as prominent. These respondents ( $n=27$ ) were almost equally divided in their reasons for visiting *Wings of the World*, which included its being a new exhibit, its being the next exhibit on their way through the Zoo, its being an exhibit they had planned on seeing that day, and a goal of seeing everything when they visited the Zoo. Two visitors in the Migration Game group of respondents also shared personal reasons: one liked Charley Harper and the other liked bats.

Table 2. Reasons for visiting *Wings of the World*

|   | Number of groups         |                      |                          |
|---|--------------------------|----------------------|--------------------------|
|   | Exit Interview<br>(n=22) | Guess Who?<br>(n=12) | Migration Game<br>(n=27) |
| Someone in group interested in birds/birding              | 7                        | 7                    | 8                        |
| It is a new exhibit to the Zoo                            | 1                        | 3                    | 9                        |
| It was the next exhibit on our way through the Zoo        | 0                        | 1                    | 9                        |
| It was one of the exhibits we had planned on seeing today | 5                        | 3                    | 7                        |
| We always try to see everything when we come to the Zoo   | 11                       | 3                    | 8                        |
| Other: "To see the bats "                                 | N/A                      | N/A                  | 1                        |
| Other: "We like Charley Harper"                           | N/A                      | N/A                  | 1                        |

Note: Some respondents listed more than one exhibit element, so the sum of all counts will exceed the number of respondent groups.

### Major Exhibit Stops

Visitor groups who participated in exit interviews (n=22) were asked to indicate where they stopped within *Wings of the World*. Specifically, they selected images from a stack of sixteen prompt cards (Table 3) that showed photos and names of places they might have stopped. The fewest number of stops reported was 1, and the most stops reported was 15. **On average, groups reported nine to ten separate stops during their time in *Wings of the World*.** In total, 217 stops were reported across the 22 groups. It should be reiterated that while respondents to both interviews and questionnaires were provided a closed-ended list of stops, each stop was reported (or not) based on visitor recollection; therefore, this report presents trends and overall patterns, but these numbers may not precisely represent the exact number of stops all visitors made during their time in *Wings of the World*.



Table 3. Number of visitor groups who stopped at each of the major spaces of *Wings of the World* (n=22)

| Name of exhibit area                   | Number of visitor groups |
|--|--------------------------|
| Mexico habitat                         | 20                       |
| South American Aviary                  | 18                       |
| Australasian Aviary                    | 18                       |
| Puffins                                | 16                       |
| Penguins                               | 16                       |
| Southeast Asia habitat                 | 15                       |
| Arctic Island                          | 15                       |
| Charley Harper Mural                   | 14                       |
| African Savannah habitat               | 14                       |
| Migration Game: Windows                | 13                       |
| Migration Game: Climb in the Nest      | 13                       |
| Migration Game: Spot the Predators     | 12                       |
| Join the Flock                         | 11                       |
| Birds All Around Us                    | 10                       |
| Migration Game: Bird-friendly Backyard | 9                        |
| Guess Who? Game                        | 3                        |

**Within *Wings of the World*, the most commonly visited spaces were the Mexico habitat, the South American Aviary, and the Australasian Aviary,** each of which included opportunities to view the Zoo’s living collections. However, nearly all of the stops reflected in the prompt cards were visited by at least half of respondent groups. The only exceptions were the Bird-friendly Backyard element of the Migration Game (which was still visited by 9 of 22 groups) and the Guess Who? game.

**When asked to describe *Wings of the World*, respondent groups (n=22) most frequently mentioned interest or learning, sensory experiences (e.g., sights, sounds, and smells, nearly always with positive framing), a positive reaction to the physical spaces for visitors, or a general positive comment;** each of these themes was mentioned by 7 visitor groups. Secondary categories of response included descriptions of closeness to birds (6 groups) and a sense of fun (5 groups). Other ways visitors described the exhibit area included references to interactivity (4 groups), references to birds in general (3 groups), references to specific birds (2 groups), references to animals in action (2 groups), and a single mention of the animals’ experience of the habitats as a “fun place for birds to live.” To clarify the specifics of visitor responses, all raw data for visitors’ descriptions of *Wings of the World* are included in Appendix A: Visitor Responses to *Wings of the World*.

**Among the exhibit areas, groups who participated in the exit interview (n=22) most frequently named the Australasian Aviary, the South American Aviary, and the Spot the Predators component of the Migration Game as the most interesting aspects of *Wings of the World*** (Table 4). Notably, nearly all of the spaces that were selected by visitors as “most interesting” were habitat spaces for live birds; the only exception was the Migration Game (referred to both in part and as a whole).

Table 4. Areas visitor groups ( $n=22$ ) described as most interesting in exit interviews

| Number of groups who selected the element | Exhibit element                    | Reasons given for interest   |
|---|------------------------------------|--|
| 7   | Australasian Aviary                | Habitat space<br>Number and diversity of birds<br>Inclusion of bats<br>Animals in action |
| 6   | South American Aviary              | “Close enough to care”<br>Variety of birds<br>Beauty of birds                            |
| 5   | Migration Game: Spot the Predators | Fun, interactive   |
| 3   | Mexico habitat                     | Engagement with animal (sight; sound)  |
| 3   | Aviaries (in general)              | Interesting space for people to enter<br>“natural-like” habitat                          |
| 1   | Migration Game (general)           | Fun, interactive   |
| 1   | Penguins                           | Animals in action  |
| 1   | Other                              | Interacting with (touching) animals  |

*Note: Some respondents listed more than one exhibit element, so the sum of all counts will exceed the number of respondent groups.*

Groups were also invited to share what exhibit areas they found least interesting. Overall, areas described by visitors in this way tended to be those that included limited interactivity (e.g., the Charley Harper Mural, Join the Flock, and the Nest element of the Migration Game) and those that visitors perceived as not “for” them, either because of their age level (aspects of the Migration Game in part or whole) or because of personal interests (e.g., the Guess Who? game and the Australasian Aviary). In two cases, respondents reported not understanding the interactives: one of these related to Guess Who?, and one related to the Bird Friendly Backyard element of Migration Game (Table 5).

Table 5. Areas visitor groups ( $n=22$ ) described as least interesting in exit interviews

| Number of groups who selected the element | Exhibit element          | Reasons given for lack of interest   |
|---|--------------------------|--|
| 5   | Charley Harper mural     | Positive reactions to visual quality, but not a place where people spend lots of time due to limited interactivity |
| 4   | Join the Flock           | Interactivity was “just spinning a wheel”  |
| 3   | Guess Who? game          | “See those birds all the time”<br>More interest in seeing living birds<br>“Didn’t get it”                          |
| 3   | Climb into the Nest      | “Just taking another picture”  |
| 2   | Nothing                  |  |
| 1   | Australasian Aviary      | “Don’t like bats”  |
| 1   | Aviaries (in general)    |  |
| 1   | Spot the Predators       | Child “too young”  |
| 1   | Bird-Friendly Backyard   | “Didn’t quite understand it”   |
| 1   | Migration Game (general) | “Boring for adults”  |
| 1   | Other                    | Only visited Aviaries  |

*Note: Some respondents listed more than one exhibit element, so the sum of all counts will exceed the number of respondent groups.*

The evaluation team additionally asked groups who participated in the exit survey whether they had chosen to take a pledge related to ways they could be better bird neighbors. Seventeen of twenty respondent groups reported that they had not taken the pledge, which involved choosing one of several tasks, taking a photograph next to the listed task, and sharing the photograph on social media with the hashtag #JoinTheCZBGFlock. Nine respondents offered clarifications as to why they had not taken a pledge. These included themes such as being more interested in something else (4 respondents), reading and engaging with the sign but not taking a picture (3 respondents), failure to notice the pledge opportunity (2 respondents), and a feeling that the space was too crowded (1 respondent).

Among the five respondents who did report completing at least one pledge, all four possible pledges were represented, in the following order of frequency:

2 respondents - *We pledge to unplug electronic devices when not in use to save energy and keep our climate stable.*

2 respondents - *We pledge to grow native plants in our yard for birds to use as food and shelter.*

1 respondent - *We pledge to keep our cat inside to keep birds safe from attack.*

1 respondent - *We pledge to make our windows more visible to birds so they don't fly into the glass.*

When asked to describe why they took those pledges, three respondents offered further comment. One respondent who selected the pledge related to native plants described their decision-making as based on chance; they “just landed on it.” The other respondent who pledged to grow native plants described it as a new positive goal and indicated that their group already did most of the other activities associated with pledge choices. Meanwhile, the respondent who pledged to make windows more visible explained that that action felt manageable, like “something I could do.”

### A Closer Look: Guess Who?

The evaluation team observed twelve groups who chose to interact with Guess Who?, then approached the adult(s) in the group as they left the game area and asked them if they would participate in a short interview about their experience. Observers timed the length of engagement with the interactive for each group: while one group spent only 46 seconds playing the game, another played the game multiple times and spent slightly over nine minutes engaging with it. (Table 6). The average time spent engaging with Guess Who? was about three and a half minutes, and most groups who spent about three minutes engaging with it had enough time to complete one game.

Table 6. Time spent in Guess Who?

|               | Time<br>(minutes:seconds) |
|---------------|---------------------------|
| Shortest time | 0:46                      |
| Longest time  | 9:06                      |
| Average time  | 3:34                      |

**The majority of the time, the child in a given group was either the one who led the interaction with the game or was a co-leader with an adult in the group.** When the child did lead the interaction, the adult(s) in the group usually joined in, but in one instance the adult paid no attention to what the child was doing. About a quarter of the time, the adult led the initial engagement with the game, usually explaining the rules of Guess Who? to children in the group and helping them understand how to craft their questions about the birds in the game (Table 7). Two groups chose to complete three or more rounds of Guess Who?, with the child or children suggesting that the group continue to play.

Table 7. Group engagement dynamics: Guess Who?

|   | Number of groups<br>(n=12) |
|---|----------------------------|
| Child led, adult joined in                | 5                          |
| Child led, adult watched                  | 1                          |
| Child led, adult paid no attention        | 1                          |
| Adult led, child joined in                | 3                          |
| Led about equally by both child and adult | 2                          |

**Five of the twelve groups played the game through at least once**, and one group played the game without adhering to the posted rules. Another group merely spent time flipping through the bird panels and reading about the birds, and five other groups started playing the game but seemed to lose interest and walked away (Table 8).

Table 8. Overall engagement with Guess Who?

|  | Number of groups<br>( <i>n</i> =12) |
|--|-------------------------------------|
| Started game but seemed to lose interest and walk away | 5                                   |
| Flipped through the cards, but didn't play the game    | 1                                   |
| Played game in a different way                         | 1                                   |
| Completed Guess Who?                                   | 5                                   |

When asked about why they did not complete the game, respondents gave answers that were consistent with what they found least interesting about the game and what they thought the Zoo could do to enhance its appeal. Repeated themes across responses to these two questions were as follow:

- Respondents perceived the children in their group as too young to be interested in the game and/or to have the attention span to play the game
- Respondents felt it was difficult to hear the opponents and suggested that the Zoo team better enclose the game area and lower the divider between the opposing teams
- Respondents felt that there was so much to explore in the new building that they did not want to spend time on the game

Taken together, **these data suggest that the reasons people chose not to completely engage with the game as it was designed had more to do with external conditions, such as age of children and difficulty in hearing all those in the group playing the game, than with the game itself.**

When asked what they thought was most interesting about the game, a large majority of respondents (*n*=12) indicated it was the subject matter: birds. Some responded that they enjoyed seeing the pictures of and learning more about the birds they were already familiar with, which largely meant birds found in their backyards and neighborhood parks. They also enjoyed seeing pictures of birds they were not familiar with and learning about them (Table 9).

Table 9. Most interesting part of Guess Who?

|  | Number of groups<br>( <i>n</i> =12) |
|--|-------------------------------------|
| Seeing familiar and unfamiliar birds                   | 7                                   |
| Playing a different version of the familiar Guess Who? | 2                                   |
| Didn't know it was a game                              | 2                                   |
| Competitive aspect of game                             | 1                                   |

## A Closer Look: Migration Game

While the initial plan for this study was to observe each interactive in the Migration Game individually, the evaluation team found this was not an efficient use of time and did not yield necessary data. However, one problem that quickly became obvious was that the signage and the bird selection spinner kiosk were both against the wall that would be positioned at a person's back as they walked through the *Wings of the World* building. Even though there was a large sign above the bird selection spinner kiosk, the placement of these exhibit elements meant that the majority of people were unaware that the area was supposed to be engaged with as a game; most visitors simply wandered through the room. After arranging for a temporary sign to be created and hung on a blank wall at the entrance of the Migration Game, more visitors began entering the Migration Game room. In response, the evaluation team agreed to start over with data collection the next day (Saturday) and to observe the Migration Game exhibit as a whole, rather than as a series of individual interactives.

Although the initial evaluation plan entailed observing and interviewing twelve family groups for each of the four discrete Migration Game interactives, the decision to observe the Migration Game as one exhibit let the evaluation team to adjust the sampling target to total of 20 family groups for the whole experience, the same target that had been set for the exit interviews concerning the holistic *Wings of the World* experience. Ultimately, the changes to the protocol meant that team was able to observe and interview adults from 27 family groups, although not all cases had complete data.

An important contextual note was that the Migration Game periodically included a Zoo volunteer in the area to help facilitate the visitors' experience. However, the evaluation team was interested in how visitors would use the area without any additional guidance. Therefore, the team decided to instruct Zoo volunteers to avoid the Migration Game area while data were being collected, allowing for us to observe visitors choosing to enter and engage with the interactive elements in the exhibit without any type of urging or explanation from someone outside their intergenerational family group.

**The evaluation team found that the groups observed in the Migration Game area spent slightly less time on average interacting with exhibit components than groups who had been observed with Guess Who? (Table 10). Group engagement dynamics were very similar to those observed in Guess Who?, with children leading the group over half the time. Still, there were almost as many groups in which the adults and the children equally led the engagement, which might suggest that adults found the Migration Game to be more appealing than Guess Who? (Table 11).**

Table 10. Engagement time: Migration Game

|               | Time<br>(in minutes) |
|---------------|----------------------|
| Shortest time | 0:55                 |
| Longest time  | 8:55                 |
| Average time  | 2:32                 |

Table 11. Group engagement dynamics: Migration Game

|   | Number of groups<br>( <i>n</i> =24 complete data points) |
|---|--|
| Child led, adult joined in                | 8  |
| Child led, adult watched                  | 4  |
| Child led, adult paid no attention        | 1  |
| Adult led, child joined in                | 2  |
| Led about equally by both child and adult | 9  |

Only one group entered the Migration Game exhibit and seemed to lose interest and walk away. All the remaining groups engaged with one or more interactives, and some completed the Migration Game (Table 12). During observations, the evaluation team noted that visitors did not usually follow the bird decals on the floor and go through the interactives sequentially as they were positioned in the Migration Game. Instead, some would come into the area and be attracted to one interactive and engage with it. They then would notice one or more of the other interactives in the area and engage with those. Thus, while they may have engaged with some of the interactives in the Migration Game exhibit, many groups did not complete the entire game. When these visitors were asked why they did not complete the Migration Game, their main reasons were either that they did not know it was a game or that they were just letting the kids explore the space on their own. Some visitors also reported that their children did not have a long enough attention span to engage with all the interactives in the Migration Game (Table 13).

**Respondents' suggestions about how the Zoo could change the Migration Game to encourage more visitors to participate largely related to clearly framing it as a game** (e.g., by bringing out more clearly the pathway of bird decals on the floor of the game). Other suggestions given by multiple visitors included adding more hands-on elements to the area and replacing at least some of the text labels with a digital recording of the information that could be accessed by pushing a button (Table 14).

Table 12. Overall engagement with the Migration Game

|   | Number of groups<br>( <i>n</i> =21 complete data points) |
|---|--|
| Started game but seemed to lose interest and walk away                  | 1  |
| Engaged with several interactives, but did not actually play whole game | 13   |
| Completed the Migration Game  | 7  |

Table 13. Why visitors did not complete the Migration Game

|  | Number of groups<br>(n=18) |
|--|----------------------------|
| Didn't know it was a game                    | 6                          |
| Just letting the kids explore the space      | 4                          |
| Children's attention span too short          | 2                          |
| Not enough interaction to keep our attention | 1                          |
| Too much text                                | 1                          |
| Distracted by all the activity in the area   | 1                          |
| Just missed one of the interactives          | 1                          |

Table 14. What the Zoo could do to make visitors want to play the Migration Game

|   | Number of groups<br>(n=17) |
|---|----------------------------|
| Nothing – it's good just as it is                 | 5                          |
| Make it clearer this is a game and where to start | 5                          |
| More physical activity/interactives               | 3                          |
| Less text; more audio/digital                     | 2                          |
| More bird feeding tips                            | 1                          |
| Make the migration "path" of birds clearer        | 1                          |

When family group members engaged with the Migration Game interactives, observers noted that all of the interactives except for Bird-friendly Backyard seemed to be equally appealing to most visitors. Watch Out for Windows, however, did draw slightly more visitors than the other interactives (Table 15).

Table 15. Engagement with specific Migration Game interactives

|                                 | Number of groups<br>(n=27) |
|---------------------------------|----------------------------|
| Play the Migration Game spinner | 20                         |
| Watch Out for Windows           | 25                         |
| Spot the Predators              | 23                         |
| Bird-friendly Backyard          | 13                         |
| Climb in the Nest               | 21                         |

In follow-up interviews, the evaluation team asked adults leaving the Migration Game area what they found to be the most interesting part of the experience. In response, almost half of participants referred to the pewter bird statues that, when touched, emitted the song of that particular bird species. While these statues were found throughout the *Wings of the World* exhibit area, three were in the Spot the Predators area of the Migration Game room. The main reasons given for why visitors found a specific part of the Migration Game to be interesting were related to interactivity or hands-on experiences, as well as gaining new information about birds or what people could do to help birds (Table 16).



Table 16. Visitors' descriptions of what they found most interesting about the Migration Game and why

| Number of groups<br>(n=23) | Most interesting part of<br>game                               | Why most interesting   |
|----------------------------|--|--|
| 11                         | Touching the pewter<br>bird statues to hear the<br>bird's song | Interactive/hands-on<br>Same birds we see at home<br>Introduced to new/different birds<br>Enrichment for children<br>Gave us new information |
| 8                          | Watch Out for Windows  | Interactive/hands-on<br>Gave us new information<br>Want to do something to windows at home   |
| 4                          | Climb Into the Nest  | Good photo op<br>Fun   |
| 3                          | Bird-friendly Habitat  | Gave us new information  |
| 2                          | Bird Selector Spinner  | Got to see different birds<br>Visually appealing   |
| 1                          | Spot the Predators   | Interactive/hands-on   |
| 1                          | Bird decal path  | Interactive/hands-on   |

**Most often, visitors reported that they liked everything about the Migration Game.** A few individuals cited Watch Out for Windows as their least favorite interactive; however, twice as many visitors reported that Watch Out for Windows was their favorite interactive in the Migration Game area. Data associated with the Migration Game as a whole could suggest that the visitors who chose Windows as their least favorite interactive may have not realized that the windows had a message and purpose associated with the game and therefore did not engage with that interactive. Otherwise, the reasons given for choosing an interactive as a least favorite component of the exhibit were varied (Table 17).

Table 17. Visitors' descriptions of what they found least interesting about the Migration Game and why

| Number of groups (n=22) | Least interesting part of game       | Why least interesting  |
|-------------------------|--------------------------------------|--|
| 9                       | Liked everything – nothing to change | No particular reason – just not interesting  |
| 4                       | Watch Out for Windows                | Didn't catch my eye<br>Didn't know it was an activity we could do<br>One window was broken |
| 3                       | Too much text to read overall        | Boring for kids<br>Prefer to push button and have text read aloud                          |
| 2                       | Climb in the Nest                    | Not interactive<br>Better for small children   |
| 2                       | Bird-friendly Habitat                | Not interactive  |
| 1                       | Bird Selector Spinner                | Doesn't tell you much about the birds on it  |
| 1                       | Stumps in middle of room             | Not sure what to do with them  |

## Interpretive Messaging

### Key Takeaways

Overall, study participants were able to list and explain several new concepts they gained during their engagement with the different habitat areas and interactives found in *Wings of the World*. Those who chose to engage with the Guess Who? interactive were able to list a number of bird species that were found on the game's panels and often gave specific facts that appeared on the bird panels for many of the species. Meanwhile, visitors who engaged with the Migration Game were able to list a number of things that could be done to protect birds during migration. In particular, specific exhibit messages about increasing the visibility of windows seemed to resonate with visitors. The results of this study suggest that the primary messages visitors carried with them when they left *Wings of the World* related to the diversity of bird species and the importance of respecting and protecting birds and their habitats.

### Guess Who?

**Overall, visitors who engaged with Guess Who? were able to identify a dozen species of birds that appeared on the bird panels.** Most of the time they did so by listing specific bird species by name (e.g., "wood duck" or "cardinal"). A majority also noted specific information about the species, usually physical characteristics such as feather color, but sometimes behavioral characteristics such as "flies backward" (Table 18). Although the study data suggested that visitors potentially could have learned about the bird species that appeared on the bird panels in Guess Who?, a possible limitation might be that these bird species were familiar to more visitors than others and therefore may have to some extent represented prior knowledge.

Table 18. Visitors identify and give information on Guess Who? bird species

| Number of groups<br>(n=11) | Species of bird         | Information visitor remembered                               |
|----------------------------|-------------------------|--|
| 3                          | Cardinal                | Lots of red feathers   |
| 3                          | Robin                   | Lives together in our yard*                                  |
| 2                          | Wood duck               | didn't know wood duck was in this area                       |
| 2                          | Dove                    | Lives together in our yard*                                  |
| 2                          | Great horned owl        | Yellow eyes; hangs out in trees; lives together in our yard* |
| 2                          | Turkey vulture          | Big wing span; eats "dead stuff"; cleans up an area          |
| 2                          | Blue jay                | Lots of blue feathers  |
| 2                          | Hummingbird             | Colorful; flies backward                                     |
| 1                          | Mallard duck            |  |
| 1                          | Duck (no species given) | Swim; food in water  |
| 1                          | Red-tailed hawk         | Bird of prey   |
| 1                          | Heron                   |  |

\*Three species one person noted which are found on his/her property

Information given without associated species: Some very colorful; different beaks; if go in water or not

### Migration Game

**Visitors who interacted with the Migration Game were able to list a number of actions they could take that were presented in the associated interactives in follow-up interviews. In particular, visitors most frequently named actions associated with the Watch Out for Windows interactive.** Meanwhile, even though a number of visitors did not find the Bird-friendly Backyard interactive very interesting, data suggest that visitors who did find it interesting remembered a number of actions they could take to help birds, two of which were also presented in the Spot the Predators interactive. Visitors also shared actions they could take that were not displayed in any part of the Migration Game exhibit. Some, such as to "leave their nests alone," would seem to be common sense actions, while others seemed to be more along the lines of general environmental conservation actions, such as "save the climate" (Table 19). **The overall conservation message visitors gained from engaging with the interactives in the Migration Game was that birds are important, and people therefore should protect them, respect them, be aware of them and take care of them by providing good bird habitat** (Table 20).

Table 19. Actions to help birds during migration recalled by visitors

| Number of groups (n=22) | Where actions are found in the Migration Game | Actions  |
|-------------------------|---|--|
| 9                       | Watch Out for Windows                         | Put some tape on the window<br>Blinds to make windows more visible   |
| 5                       | Spot the Predators                            | Provide bird feeders<br>Keep bird feeders dry<br>Put predator guards on mounting poles<br>Build bird houses (found in both Predator/Backyard)  |
| 4                       | Bird-friendly Backyard                        | Keep cats inside (found in both Predator/Backyard)<br>Provide a shallow water source on the ground<br>Plant native plant species – good food source  |
| 7                       | Actions not presented in the Migration Game   | Don't leave bird food out all the time or birds won't migrate<br>Save the climate<br>Don't pollute<br>Learn more about the bird you got on the spinner and their migration path<br>Don't feed ducks and geese in the park<br>Leave their nests alone |
| 2                       | Don't know                                    |  |

Table 20. Visitors' perceptions of conservation messaging in the Migration Game

| Number of groups (n=22)                                   | frequency |
|---|-----------|
| Birds are important; protect/take care of birds           | 6         |
| Provide good bird habitat                                 | 5         |
| Be aware of/respect and help animals                      | 5         |
| How we can help birds in general (no specific ways given) | 2         |
| Encourage and increased interest in birds                 | 1         |
| Educational in general about animals                      | 1         |
| Don't know  | 3         |

### Overall Experience

In order to capture what visitors took away from their overall experiences in *Wings of the World*, groups who participated in exit interviews (n=22) were asked to describe any new ideas that they would take away with them. In response to this question, **about a third of respondents (7 visitor groups) described the importance of making windows more visible, and just under a fourth of respondents gave a response related to birds' biology or behaviors (5 visitor groups) or to the general idea of being better bird neighbors (4 visitor groups)**. Other categories of response referred to names of birds (3 visitor groups), what birds eat (2 visitor groups), the volume in the

building (1 visitor group), seeing birds up close (1 visitor group), and interacting with birds (1 visitor group).

**The evaluation team also asked visitors what they thought the Zoo was trying to communicate about birds. The most frequent theme in these answers related to the diversity of bird species, which was mentioned by just under half of respondents (10 visitor groups).**

Strong secondary categories of response related to a general ethic of protecting birds (8 visitor groups) and references to bird habitats (7 visitor groups). Other responses included uncertainty or a general positive comment (5 visitor groups), references to local birds (4 visitor groups), references to bird behaviors (3 visitor groups), and references to ecosystems and/or the interdependence of species (3 visitor groups).

To elicit more detailed responses about action-focused interpretive messaging, evaluators then posed two follow-up questions: “The exhibit talked a little bit about conservation of birds and their habitats and explained ways people could be good neighbors to the birds. What are some of the ways you can help birds? How about helping birds when they are migrating?” **When asked directly about actions they could take, half of respondents (11 visitor groups) mentioned putting out bird feeders, and more than a third described growing bird-friendly plants (9 visitor groups) and mitigating hazards associated with windows (8 visitor groups), respectively.** More than a quarter of respondents described birdhouses and/or hospitable water spaces (6 visitor groups), and the same number talked about keeping cats inside (6 visitor groups). Other categories of response included references to not littering or polluting (4 visitor groups) and installing predator guards (2 visitor groups). Only one visitor group responded that they did not know an answer to this question. To clarify the specifics of visitors’ takeaway messages, all raw data are included in Appendix A: Visitor Responses to *Wings of the World*.

## Conclusions and Recommendations

Overall, this formative evaluation appeared to show that visitor engagement with *Wings of the World* reflected similar patterns of navigation and interest expressed elsewhere in the Zoo. While visitors were consistently drawn to elements that reflected the Zoo's general interpretive approach of creating natural-like spaces for animals, and bringing people "close enough to care," they also engaged with and enjoyed the interactive interpretive elements. Importantly, visitors to *Wings of the World* who participated in this study appeared to come away with a strong understanding of the general messages of the exhibit space, with enough specificity to articulate key conservation actions they could take to become better bird neighbors. Findings associated with each of the study questions are included below.

### With what interactives did family groups choose to engage and why?

- The majority of respondents to exit interviews reported that they chose to visit *Wings of the World* because they always tried to see everything when they visited the Zoo, and many also noted someone in the group had an interest in birds. Having an interest in birds was also the main reason visitors chose to engage with the Guess Who? exhibit element. There did not seem to be such a clear-cut reason that visitors chose to engage with the Migration Game: having an interest in birds was a major reason for engaging with this, but slightly more visitors reported that they did so because *Wings of the World* was a new exhibit and was the next one on their pathway through the Zoo.
- The exit interview data suggested that the most interesting experiences visitors had were with the Mexico habitat exhibit and the two Aviary spaces. Visitors indicated that seeing the diversity and beauty of the different bird species and being able to have up-close interactions were important factors in their choices. They found those areas that had less of a hands-on element to them (e.g., the Charley Harper mural or Join the Flock) or that dealt with the "common" birds they might see in their backyards (Guess Who?) to be the least interesting parts of their visit to *Wings of the World*. When asked specifically if they chose to Join the Flock by taking a pledge, only 5 of the 22 family groups had done so, and other than one who said they took the pledge that the spinner stopped on, the groups chose to do something that they felt was "doable."

### In what ways did participants engage with the interactives and why?

- For the majority of observed interactions at both Guess Who? and the Migration Game, children led the engagement and the adults in their groups joined in. About half the time, visitors would start engaging with Guess Who? and then walk away, mainly because the child was too young to understand how to play the game or because there were other things the group wanted to do. Across all the panels, people liked seeing all the birds they were familiar with and those that were new to them.
- Most of the visitors observed in the Migration Game area engaged with a number, or even all, of the interactives. However, many did not actually frame their interactions within the overarching game, primarily because they were not aware that it was a game. Watch Out for Windows was the most frequently visited interactive, and visitors reported that it was most interesting because it was hands-on and informative. Spot the Predators was frequently visited, but its appeal was primarily due to the pewter bird statues that played the song of

the bird species when touched: visitors reported that they liked this interactive because it was hands-on and the bird statues were of bird species with which they were familiar. While most visitors reported that there was nothing that was uninteresting to them in the Migration Game area, some said they did not find Watch Out for Windows to be interesting; that particular element seemed to hold either strong appeal or limited appeal for visitors, without much middle ground.

- In general, respondents seemed to be interested in the design of *Wings of the World* in ways that were consistent with the Zoo's Recipe for Success design framework,<sup>1</sup> particularly being "close enough to care" and the aesthetic quality of the bird habitats, which visitors sometimes articulated in association with animal well-being and positive experiences.

### **What might enhance the interpretations in ways that would increase family engagement and desired interactions?**

- After experiencing *Wings of the World*, visitors who participated in this study were able to list and explain several new concepts they gained during their engagement with the different habitat areas and interactives found in the exhibit.
  - Those who chose to engage with Guess Who? were able to list a number of bird species that were found on the game's panels and often gave specific facts that appeared on the bird panels for many of the species.
  - Those who engaged with one or more interactives in the Migration Game were able to list a number of specific things that could be done to protect birds during migration. For example, respondents to questions about the Migration Game, as well as those responding to the more holistic exit interviews, were able to articulate that decreasing the reflective quality of windows by putting tape on them or using blinds was a way to help birds during migration. Both groups also listed other ways to be good bird neighbors that were found in the Migration Game area.
- The most frequent conservation message perceived by visitors to the Migration Game area was that birds are important and people should respect and protect them by providing them with good habitats. Visitors who participated in the exit interview also reported that it was important to protect bird species and their habitats, but they felt that the overall message about birds expressed by *Wings of the World* was the diversity of bird species that exist in the world.
- Visitor feedback suggests that, where possible, the following changes could support stronger visitor engagement:
  - Experimenting with the physical space (e.g., more enclosure or sound dampening, lowering the level of the divider, etc.) on Guess Who?
  - Emphasizing novelty and importance of local birds in signage and/or the subtitles associated with the Guess Who? interactive

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<sup>1</sup> Heimlich, J.E., Hayde, D., Bray, S. (2016). A Recipe for Success: 2016 Evaluation Report. Technical report for the Cincinnati Zoo & Botanical Garden, Columbus, OH: Lifelong Learning Group.

- Experimenting with different placement and clearer messaging to highlight the beginning of the Migration Game
- Clarifying that the interactives in the Migration Game area are connected by an overarching game narrative



## Appendix A: Visitor Responses to *Wings of the World*

### How would you describe *Wings of the World* to a friend?

*Very open space, less smelly*

*"Really really" awesome!*

*There are activities, saw interesting birds*

*Looked nice, very cool. Love going into the aviaries*

*Think it's awesome, they should go see them*

*"I like it", interesting, "Bird-tastic"*

*Bright, interactive, "fun and bubbly"*

*Cool, fun to watch birds close up*

*Interactive, like to go in the aviaries and see birds up close*

*Fun, interesting, lots of birds*

*Bright, colorful, interactive - kid knew exactly what to do, very kid-friendly - engaging*

*Go and be in a room and see birds flying around up close*

*Penguins and puffins cool*

*Very cool. Surprised to see bats in there. Interesting*

*Fun to see. Interesting. Animals were close and got to touch snakes.*

*Smelly and colorful. Cool and interesting and noisy*

*Fun place for birds to live - interesting and beautiful - love to hear*

*Go into the exhibit and get really close to the birds*

*Neat place to get up close to birds and get close to them - get in with them*

*Really good place to learn about nature and exotic birds - very engaging*

*Child: had a lot of funny birds to watch, Adult: interactive, see birds up close, good pictures*

*Beautiful - birds colorful - some very bright birds, very open*

### After going through this exhibit area, what is one new idea you are taking away with you today?

*How to make your windows bird friendly*

*Birds can't see glass*

*Birds can't see windows, keeping birds safe from windows*

*Much more brights and colorful*

*You saw a cardinal outside, we have fruit bats*  
*Nothing*  
*Different calls that birds make, learning local calls*  
*Sound dampening in the building*  
*Don't know*  
*Putting tape on windows*  
*How to make windows bird friendly, How to help them from predators*  
*Never heard of a (?) - song of one of the birds - close to it when it sang*  
*Puffins and penguins*  
*Different sounds of birds*  
*Snake - way it felt, just that birds are cool - if you're quiet you'll see them*  
*There's a bird kind of like a penguin but can fly*  
*how to help birds*  
*Windows - protect birds from crashing into them*  
*Penguins names - Ben and Jerry*  
*Make good habitat for animals*  
*Kid - how penguins are smart, Adult - Up close with bird nice to*  
*Specific ways to take care of birds*

## **What do you think the Zoo would like you to know about birds?**

*How to keep them safe, stop light pollution*  
*People shouldn't kill birds*  
*How to help keep them safe*  
*There is diversity, where they are found and food they eat. Different habitats*  
*What birds live around us*  
*Their habitats where they are from, populations, what they do and eat*  
*Local species and diversity*  
*They are all around us and lots of variety*  
*Different types, diversity*  
*Help protect them and take care of them*  
*Birds do good things for our environment, local diversity, we can make our world bird friendly*  
*Birds have different songs and sounds they make*  
*What we can do to protect them*

*More about different types of birds (especially not from here) and habitats*

*That birds are cool - synergistic with all species together - loved habitat*

*They make the*

*How to keep them safe and ID them*

*Some birds are endangered. Variety of birds*

*Such variety - different sizes and habitats*

*Important part of our habitat*

*No Idea*

*Everything! Beautiful birds - unique - every one different from*

**The exhibit talked a little bit about conservation of birds and their habitats and explained ways people could be good neighbors to the birds. What are some of the ways you can help birds? How about helping birds when they are migrating?**

*Put out bird feeders, make windows visible*

*Put out bird feed, build them a house, keep cats inside*

*Put plants in your yard, put out bird feeders*

*Feeding them*

*Protect them from predators*

*Make a bird house, recycle, don't litter*

*Bird friendly plants*

*Bird houses, bird food, stickers on windows*

*More flowers planted*

*Keep your cat inside, fill up bird feeders*

*Predator guards by feeders, replace bath with more natural puddle, keep cats inside, put out food*

*Didn't go - 1 year old*

*Recycling not littering*

*Bird feeder/ bird bath*

*Feed them, different plants (trees, shrubs)*

*Bird feeders, plant trees, throw trash away*

*Keep cat inside, windows (don't bump into them) put something on them*

*Keep cats indoors, marking windows for birds*

*Plant more trees, let windows be a little less clean, more native plants*

*Bird houses, feed them, keep cats inside, plenty of trees to perch and take a break*

*Don't litter, don't pollute - good to environment*

*Right plants, feeders not too close to windows and full of right food  
put out nesting material*

*Plant bird friendly plants*

*If you gate (screen) window birds won't hit windows*

*Turn off lights so they don't crash into windows*

## Appendix B: Study Instruments

Date: \_\_\_\_\_ Interviewer initials: \_\_\_\_\_

### General Exit Interview

**Approach:** Hi, I'm helping the Zoo get an idea of what our visitors think about our new *Wings of the World* exhibit, and I was hoping you had time for a short interview – should take less than 5 minutes. (appropriate response)

The first thing I would like to know is what you did in the exhibit. Here are some cards of things you could have done or looked at. Could you sort them into 2 different groups: things you did and things you did not do? Thanks!

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Harper Mural           | <input type="checkbox"/> South American Aviary    | <input type="checkbox"/> All Around Us  |
| <input type="checkbox"/> Guess Who? Game        | <input type="checkbox"/> Australasian Aviary      | <input type="checkbox"/> Mexico habitat |
| <input type="checkbox"/> Southeast Asia habitat | <input type="checkbox"/> African Savannah habitat | <input type="checkbox"/> Arctic Islands |
| <input type="checkbox"/> Puffins                | <input type="checkbox"/> Penguins                 | <input type="checkbox"/> Join the Flock |

Migration Game:

- Watch Out for Windows     Spot the Predator     Bird-friendly Backyard     Took a photo in the “nest”

How would you describe *Wings of the World* to a friend?

If you had to choose just one of these (gesture at the group of interactives they engaged in), what did you find the most interesting or fun and why?

How about the least interesting? (and why)

After going through this exhibit area, what is one new idea you are taking away with you today?

What do you think the Zoo would like you to know about birds?

The exhibit talked a little bit about conservation of birds and their habitats and explained ways people could be good neighbors to the birds. What are some of the ways you can help birds?

How about helping birds when they are migrating? (if not given above)

Did you “Join the Flock” and make a pledge? (If no, why not)  Yes     No  
Which pledge(s) did you make? (show the 4 pledge cards)

Why did you choose that (those) pledge(s)?

Now, could you please tell us a little about yourself? (flip to back of page and hand to visitor to complete)

Date: Interviewer initials:

***Wings of the World* Interactives Engagement Form – Guess Who? Game**

**Observations:**

Engaging with interactive: Start time: \_\_\_\_\_ Finish time: \_\_\_\_\_ Total time: \_\_\_\_\_

Engagement led primarily by:

- |  |   |
|--|---|
| <input type="checkbox"/> Child led, adult joined in                | <input type="checkbox"/> Adult led, child joined in         |
| <input type="checkbox"/> Child led, adult watched                  | <input type="checkbox"/> Adult led, child watched           |
| <input type="checkbox"/> Child led, adult paid no attention        | <input type="checkbox"/> Adult led, child paid no attention |
| <input type="checkbox"/> Child led, adult walked away              | <input type="checkbox"/> Adult led, child walked away       |
| <input type="checkbox"/> Led about equally by both child and adult |   |

Engagement Level Notes

Engagement level

- Completed interactive
- Started interactive but seemed to lose interest and walked away
- Started interactive and “got stuck” and walked away

Other observations not listed above:

**Interview:**

Hi! I noticed you were playing the Guess Who? game and I was wondering if I could ask you just a few questions about it – it should only take about 3 or 4 minutes (appropriate response)

What was the most interesting part of doing this game? Why?

Least interesting? (and why)

(If they did not complete the activity) I noticed you didn't finish the game – why not?

Is there anything the Zoo could do to enhance this activity to make it more fun and interesting?

Which birds did you identify during the game? Can you tell me a little bit about them?

Now, could you please tell us a little about yourself? (flip to back of page and hand to visitor to complete)

Date: Interviewer initials:

### ***Wings of the World Interactives Engagement Form – Migration Game Interactives***

#### **Observations:**

Interactive observing:  Watch Out for Windows  Spot the Predator  Bird-friendly Backyard

Engaging with interactive: Start time: \_\_\_\_\_ Finish time: \_\_\_\_\_ Total time: \_\_\_\_\_

Engagement led primarily by:

- |  |   |
|--|---|
| <input type="checkbox"/> Child led, adult joined in                | <input type="checkbox"/> Adult led, child joined in         |
| <input type="checkbox"/> Child led, adult watched                  | <input type="checkbox"/> Adult led, child watched           |
| <input type="checkbox"/> Child led, adult paid no attention        | <input type="checkbox"/> Adult led, child paid no attention |
| <input type="checkbox"/> Child led, adult walked away              | <input type="checkbox"/> Adult led, child walked away       |
| <input type="checkbox"/> Led about equally by both child and adult |   |

Engagement level

Engagement Level Notes

- Completed interactive
- Started interactive but seemed to lose interest and walked away
- Started interactive and “got stuck” and walked away

Other observations not listed above:

#### **Interview:**

Hi! I noticed you were doing the Migration Game and I was wondering if I could ask you just a few questions about the game – it should only take about 3 or 4 minutes (appropriate response)

(Hand visitor the card for the interactive they did) What was the most interesting part of doing this activity? Why?

Least interesting? (and why)

(If they did not complete the activity) I noticed you didn't finish the activity – why not?

Is there anything the Zoo could do to enhance this activity to make it more fun and interesting?

What are some things you could do to help birds during migration? (Take card back)

What conservation message do you think the Zoo is trying to get across with the entire Migration Game? (gesture)

Now, could you please tell us a little about yourself? (flip to back page and hand to visitor)

**Demographics page for all 3 data collection instruments:  
Please tell us a little about yourself.**

**First, why did you come into the *Wings of the World* exhibit?**

- I/someone in my group has an interest in birds/birding
- It is a new exhibit to the Zoo
- It was the next exhibit we came to as we were going through the Zoo
- It was one of the exhibits we were planning on seeing today
- We always try to see everything when we come to the Zoo
- Other reason:

**Including yourself, how many people are in your group today?**

# adults (age 18+) \_\_\_\_\_

# children and youth \_\_\_\_\_

**What are the ages of the adults in your group?**

[check all that apply]

- 18-20
- 20-29
- 30-39
- 40-49
- 50-59
  
- 60+

**What are the ages of the children in your group (if any)?** [check all that apply]

- Infant – less than 2 years old
- 2 – 4 years old
- 5 – 7 years old
- 8 – 12 years old
- 13 – 17 years old

**What is your race/ethnicity?** (check all that apply)

- African-American/Black
- American Indian/Native Alaskan
- Asian/Asian-American
- Latino and/or Hispanic
- Native Hawaiian/Pacific Islander
- White, Non-Hispanic
- Additional affiliation: \_\_\_\_\_

**Do you identify as:**

- Male
- Female
- Nonbinary

**About how often do you visit the Cincinnati Zoo and Botanical Garden?**

- Today is my first visit
- I haven't visited for many years
- Once every few years
- About once a year
- 2-4 times per year
- 5+ times per year

**Are you (or someone in the group) a member of the Cincinnati Zoo?**

- Yes
- No

**Did you plan which exhibits and programs you'd visit today using the Cincinnati Zoo's website?**

- Yes
- No

**Is there anything else you would like to share with the Zoo?**