

Exhibit Design

Panel Organizers

Steven Sarro

Curator of Birds and Mammals, The Baltimore Zoo, Baltimore, MD

Speakers

Dr. Kathy Carlstead, Research Scientist, Honolulu Zoo, Honolulu, HI

Marvin Jones, Zoo Historian, San Diego Zoological Society, San Diego, CA

Chris Bartos, Assistant Curator of Mammals, The Baltimore Zoo, Baltimore, MD

Randy Myerson, Curator of Large Mammals, The Toledo Zoological Gardens, Toledo, OH

Kerrie Haynes-Lovell, Polar Bear Supervisor, SeaWorld Enterprises — Gold Coast, Queensland, Australia

Else Poulson, Arctic Ring Keeper, Detroit Zoological Park, Detroit, MI

Topic Synopsis

In recent years, great emphasis has been placed on creating new and dynamic exhibits at zoos that provide significant enrichment opportunities for the animals on display while also offering visitors a unique viewing and learning experience. Several such new exhibits have been created specifically for polar bears, including at the Toledo Zoo, Detroit Zoo, Baltimore Zoo and SeaWorld Australia. Individuals involved in the design and implementation of these new exhibits came together on this panel to discuss the GOOD, the BAD and the UGLY. Drawing from their own experiences, panelists discussed numerous issues, including the following:

- What are key elements of a good polar bear exhibit? How do you judge the success of an exhibit?
- What are typical problems in exhibits? How can they be resolved?
- In new and old exhibits, what are successful items or strategies for both bear and visitor experience?
- How should polar bears be introduced to a new exhibit? What strategies work, what mistakes should be avoided, what cautions should be known?
- What are essential elements in making an exhibit both keeper-friendly and bear-friendly?

Marvin Jones

Zoo Historian, San Diego Zoological Society, San Diego, CA

Jones was a keeper at the Philadelphia Zoo in the 1940s, and surveyed the history of polar bears in captivity.

The first polar bear in captivity was recorded in 1,000 A.D. One was kept in the Tower of London in 1185. The first captive polar bears came from Norway and Greenland, after being captured by Norwegian whalers. The longevity record for a captive polar bear is 42 years (in Detroit).

Else Poulsen

Arctic Ring Keeper, Detroit Zoological Park, Royal Oak, MI

The Detroit Zoological Park has 4 polar bears. Poulsen described the Arctic Ring enclosure, currently the world

The entire exhibit comprises 4.2 acres, with 2 acres set aside for the polar bears. The polar bear area has both tundra and pack-ice environments, and includes a saltwater pool (in the pack-ice area), shallow freshwater pool (in the tundra area), den area, natural substrate for digging day beds, and moats to separate the tundra and pack-ice enclosures from each other. In addition, the exhibit includes a 70-foot-long underwater viewing tunnel so visitors can watch polar bears (and seals, in an adjacent exhibit) dive and swim.

Chris Bartos

Assistant Mammal Curator, The Baltimore Zoo, Baltimore, MD

The Baltimore Zoo opened its "Polar Bear Watch" exhibit in October 2003. Bartos introduced the exhibit to conference participants and described the design process and how they helped their bears adjust to the new environment.

The Zoo's original polar bear exhibit was built in the 1940s, and consisted of a rocky land area and a large pool. The den area was restrictive and made keeper access difficult.

The Zoo incorporated keeper input when designing the new exhibit. Designers also made last-minute changes to meet the new Manitoba recommendations. During the early construction phases, designers did routine walk-throughs with keepers—this enabled keepers to point out errors early, and gave them a sense of ownership.

The new exhibit incorporates one of the tundra buggies used to view polar bears in Churchill. The public can go inside, sit, and view the bears in comfort. (The original windows were replaced to provide more safety.) The landscape was designed to mimic the tundra environment of Churchill and includes two pools. Both above- and below-water

viewing are possible. Folia panels and changeable display cases offer interpretive information to the public.

Construction of the holding building was completed first, giving the keepers a chance to move the bears and help them adjust to the new environment before they were put on exhibit. Due to construction delays, the bears had only 10 days in the holding facility before the exhibit opened. Keepers organized their training activities around helping the bears to adjust.

The result? The bears' stereotypical behaviors are virtually gone in the new exhibit, and visitor reactions have been extremely positive.

Kerrie Haynes-Lovell

Polar Bear Supervisor, Sea World Enterprises-Gold Coast, Queensland, Australia

When designing its new polar bear exhibit, Sea World Australia (not affiliated with the American company, SeaWorld) went to Manitoba for advice. It used and exceeded the Manitoba standards. Sea World Australia has 2.2 polar bears.

The Sea World polar bear exhibit is L-shaped, with more than 14,000 square feet. The back area is almost as large as the front. The main exhibit has a saltwater pool as well as freshwater, ozone-treated pools. Underwater viewing is available for the public.

Several exhibit features help manage Australia's tropical heat and humidity. Keepers can create rain in three different areas of the exhibit, and seven large wind-tunnel fans (capable of creating wind from 1 to 25 knots) lift humidity out of an area. All dens have air conditioning, and because bears always have free access to the dens (except during cleaning), they have a choice of climate conditions.

In an effort to minimize skin and haircoat problems due to dampness and humidity, back dens are filled with straw and fatigue mats (to allow air to circulate and keep bears off the concrete). Dig pits are self-draining and allow keepers to easily change substrate material when needed.