

# **Spontaneous Interpretation of Real Life Events: An Innovation in Conservation Education**

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The sense of excitement and intimacy that comes from discovering a real life event as it is actually happening is intense, inspiring and memorable. Yet, there remains a great tendency for zoos and aquaria to present general biological information whose content and format is independent of the observable activities of the animals. The animals are portrayed as exhibits, living illustrations of their species - dynamic objects which inspire public interest in the biological topics being presented - rather than living individuals of inherent interest. The current, observable behaviors (breeding, territorial displays, nest building, snake shedding etc) that the exhibit animals themselves, initiate, are rarely profiled. Instead, the presentation of animal behavior is most often limited to generalized statements on graphic panels or scripted narrations of trained behaviors featured in animal shows.

This "predetermined" interpretive style utilizes a field guide approach to public education. Graphics, shows, narrators, videos etc. tell visitors what animal they are looking at and provide generalized natural history facts about the species on display. The predetermined approach fails to address a critical aspect of human motivation. Unless one knows enough to be able to "see" something of interest in an exhibit they are unlikely to develop enough of an interest to pay attention to the natural history information provided. The predetermined approach fails to address the kind of information visitors are wondering about. ie. "What is that animal doing? Why are those animals doing that? Is there anything worth watching here?" Because it doesn't address the visitors' experience or agenda, it is unlikely to stimulate their motivation.

## **Benefits of spontaneous behavior interpretation**

Developing a public education strategy that teaches people how to look at living animals (referred to here as "spontaneous behavior" interpretation) compliments the activities that visitors themselves naturally engage in during their visits. Visitors to zoos and aquariums spend most of their time interacting with other members of their own group of family or friends. According to Kellert and Dunlap (1989) the most frequently observed intragroup behavior was conversations between adults and children regarding what the animals were doing: "The content of visitor conversations is an important indicator of the subjects' knowledge, attitudes and learning" (p. 67). The next most common observed intragroup behavior, also involving adults and children, was pointing. People pointed to help others locate hidden animals, to direct others to interesting behavior or physical features of the animals, or to focus attention on signs or exhibit characteristics. Pointing appeared to be an important way for visitors to share their interests and attitudes with others and to teach others about animal appearance and behavior.

Behaviors that the animals elicit themselves are more realistic than trained behaviors. Birney (1987) found that one of the important educational values of the zoo experience is the realism associated with seeing and interacting with living animals. The chance to

enter partially into the world of wild creatures is regarded as among the most important reasons why people visit zoos and aquaria. Kellert (1987) discovered that the most frequent topics of discussion related to the exhibit animals' appearances and behaviors. Yet, visitors did not tend to recognize social or behavioral interactions between animals.

The spontaneous behaviors interpretive approach is designed to draw visitor attention to the very animal behaviors they might not expect or notice. This results in surprise discoveries.

### **Opportunities afforded by naturalistic exhibits**

The spontaneous behaviors interpretive approach probably couldn't have happened two decades ago. At that time, animals were essentially displayed as artifacts, often as single or paired specimens in architectural exhibits that appealed to human conceptions of attractiveness. Today, living exhibits are designed to mirror as closely as possible the animals' natural habitats. The animals themselves are displayed in social groupings more reflective of their natural ecology and visitors to a modern aquarium, for example, are now able to watch damsel fish compete for territories on a reef, because these fish are displayed in large schools in a simulated reef environment. The closer the living exhibit parallels an actual wild habitat, the greater the variety of real animal events, and thus interpretive opportunities. This presents a winning approach for both the animals and visitors .

Increasing numbers of zoos and aquariums are extending this naturalistic approach into their operational animal care practices. Traditionally, animals were fed and trained on schedules determined by the staff. Given that the average length of a visit to most facilities is somewhere between 1 1/2 and 3 hours, animal feeding sessions, animal care demonstrations and shows were scheduled at regular intervals throughout the day so that each visitor would be most likely to see one of these sessions during their visit. A schedule of events makes sense in a museum, art gallery or science centre where the display items are inanimate. The schedule has no impact on the objects themselves and may well serve a positive value for visitors. But how does this line of thinking apply to a zoo or aquarium where the display objects are indeed living?

There has been a growing recognition within the zoo and aquarium community of the importance of environmental enrichment. Knowledge about animals in their wild environment and their response to different environmental stimuli in captivity is fundamental. The most effective strategies appear to be those that are integrated into the animal care program. These naturalistic-based animal care strategies demand increased flexibility. In the same way that the physical design of naturalistic exhibits is based on the natural needs of the animals rather than a human conception of architecture, an animal-centered approach to animal care is based on the natural schedules and behaviors of the animals rather than on a human imposed schedule.

### **Spontaneous behavior interpretation in action: A case study of the Vancouver Aquarium 1990-1995**

Encouraging visitor-5 to watch for on-going, spontaneous events throughout a zoo or aquarium is vastly different from the standard approach of presenting a fixed schedule of pre-determined events. It requires a completely different orientation system. Between the years of 1990 and 1995, the Vancouver Aquarium pioneered an effective strategy for implementing spontaneous behavior interpretation in its public galleries.

We developed an integrated two-way radio network through which animal care staff and Naturalists could communicate current activities to staff and volunteers positioned at the main entrance and information desk. This enabled us to alert visitors to animal behaviors, training sessions, research activities or animal care activities as they happened. Animal behaviors or staff activities that lasted for at least a day, were listed on quick change information boards at the entrance and throughout the Aquarium.

We also developed a system of changeable whiteboards which enabled us to alert visitors to current happenings without increasing the number of Naturalist staff working in the galleries. The Naturalists used hand-written, changeable whiteboards to describe observable animal behaviors in individual exhibits. Through experimentation with different formats, we discovered that it is important that the whiteboards maintain their hand-written, spontaneous appearance in order for visitors to recognize them as being current.

The Vancouver Aquarium's Midas Cichlid exhibit provides a good example of this system in practice. All of the behaviors associated with raising young fish can be seen in this exhibit. Unfortunately, visitors often miss this excitement because they do not know what to look for. A whiteboard set up beside the exhibit coaches the visitors to look for specific behaviors. The Naturalists changed the whiteboard messages as the young fish grew and developed.

The response from visitors has been extremely positive. Visitors are intrigued by baby fish and are challenged to find the different sizes of young fish in the exhibit. One visitor wrote the Aquarium about the experience he had with his young son at the cichlid exhibit: The same dynamic approach has been applied to the interpretive exhibit development process. Unlike many facilities where animals are featured in generalized habitat exhibits, the Vancouver Aquarium designs its exhibits around real places. It chooses a real area of ecological significance as a focal point and then develops its field research activities, educational eco-tours and interpretive and live animal exhibits around the site. In 1990 we developed an exhibit about the ice floe edge ecosystem of Lancaster Sound in the Canadian Arctic. As one group of Naturalists discussed perspectives of the Arctic with visitors at the Aquarium, other staff led members educational tours to the actual Arctic site. At the same time, Aquarium researchers begin studies on Arctic marine ecology.

**FAX updates from the researchers provide real current information which helps visitors to form a more accurate understanding of the dynamics of the actual environment:**

FAX reports provide a vital link between the Aquarium and the outside world. The interpretive staff developed an extensive network of FAX reports from people working in wild environments along the British Columbian coastline - and around the world. FAX reports were used not only to follow Aquarium researchers but to follow wildlife, such as killer whales, along the coast of British Columbia. This current information is critical to enhancing the visitors' understanding of links between the animals at the Aquarium and animals in wild environments. It is only with this understanding that people develop the desire to better understand and protect such complex ecosystems (McIntosh, 1992, p. 7)

In summary, given the benefits for visitor learning and enjoyment and animal care and husbandry, it may seem difficult to understand why more zoos and aquariums have not built their public gallery programs around the interpretation of real, spontaneous animal behaviors. Two factors, in particular, appear to have a significant influence. First there is the pervasive belief within the entertainment paradigm that pervades zoo and aquarium activities, that visitors must have predictable, scheduled, entertaining experiences. There is a fear that the natural behaviors of animals would be too sporadic, or not spectacular enough to hold visitor interest or to be entertaining. We did not find this to be the case. An Angus Reid survey (1991) of visitor satisfaction revealed that visitors preferred the spontaneous behavior interpretation.

Secondly, zoos and aquariums typically fill their public interpretation positions with volunteers or summer students who lack the experience, skills and on-going familiarity with the animals in the collection, necessary to recognize and interpret animal behaviors.

In order to achieve the spontaneous behavior interpretive approach, we employed a full time staff of professional Naturalists. These individuals moved through the entire Aquarium, interpreting interesting animal behaviors as they occurred. An intimate understanding of the facility, its activities, current events and how these related to a particular animal, exhibit or Aquarium function was essential to this style of interpretation. As part of this approach, Naturalists developed a strong communication network across all the departments of the Aquarium as they gathered information daily from animal care staff, aquarium researchers and research associates. This information was shared with Aquarium visitors directly, and with other Aquarium staff (ie. Admissions staff, Education programs staff and volunteers, Communication staff and animal care staff) who then used it in their daily activities. Because the Naturalists were constantly in touch with activities of animals in the Aquarium and the interests of the public, they became a vital resource for television, newspaper and radio interviews and written membership newsletters. These individuals formed the matrix of an Aquarium wide information system that enabled the Aquarium to translate current, observable animal events not only into visitor experiences but also into media stories, exhibit graphics and special events. In the end, staffing these positions on a full-time basis proved to be more cost and quality effective than the seasonal staff approach we had used previously.

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