

ALIVE

ZOOLOGICAL SOCIETY
OF MILWAUKEE COUNTY
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Preparing for Penguin Propagation

by Ken Kawata, General Curator,
Milwaukee County Zoo

Undoubtedly, the penguin is one of the most popular members in the avian world. Its stance and behavior are a caricature of man. People cannot help seeing themselves reflected in these birds. Penguins inhabit the cartoon world, printed and animated. They are not only familiar as puppets and dolls, but also as trademarks. Even a successful publishing business is built on them.

Curiously enough, this penguin image is a relatively new one. "Tough, stupid and vicious, fit only for the bludgeon and the cauldron" were the terms to describe penguins by early accounts. The public warmed to these birds only in the 19th century, when live specimens arrived at European zoos.

Today, penguins are extremely popular exhibits in zoos. They are also favorite subjects for the biologist. Much information on them has been gained in recent years. There still exist, however, misconceptions about them in the public's mind.

For instance, most people associate penguins with blizzards and seas dotted with icebergs. It is generally assumed that all these birds spend their lives in the inhospitable wastes of Antarctica. For some people, penguins are almost synonymous with the Arctic seas, as well as Antarctica. This fallacy is probably the result of publicity for Antarctic expeditions.

Ornithologists recognize 17 to 18 living species (some only 14) of penguins ranging from 1 to four feet, all occurring exclusively in the Southern Hemisphere. Consequently, no penguin can be seen in the Arctic areas. Interestingly, the penguin image has made its impression heavily in the Northern Hemisphere where the wild one is absent.

Of the 17 to 18 species, only two species, the emperor and the Adelie, are restricted to Antarctica, though four other species are seen seasonally in that area. Over 60 percent of the species belong to the more temperate regions, and four species live in the subtropics. The Galapagos penguin, northernmost of all species, lives right on the equator.

Tropic or Antarctic, their habitat is the sea and its coasts. Penguins are truly the marine of all birds, forming one of the most distinctive of all avian groups. Every characteristic which distinguishes them from other birds is a result

of adaptation to marine life. Their bodies are streamlined for ease of passage through the water. Their short legs are set far back on their bodies. This forces them to stand upright, caricaturing human mannerisms. The wings are transformed into flippers, covered with small scale-like feathers, and do not fold. Unlike most other birds, penguins have feathers uniformly and densely covering the entire surface of the body. All have white breasts and black or bluish backs.

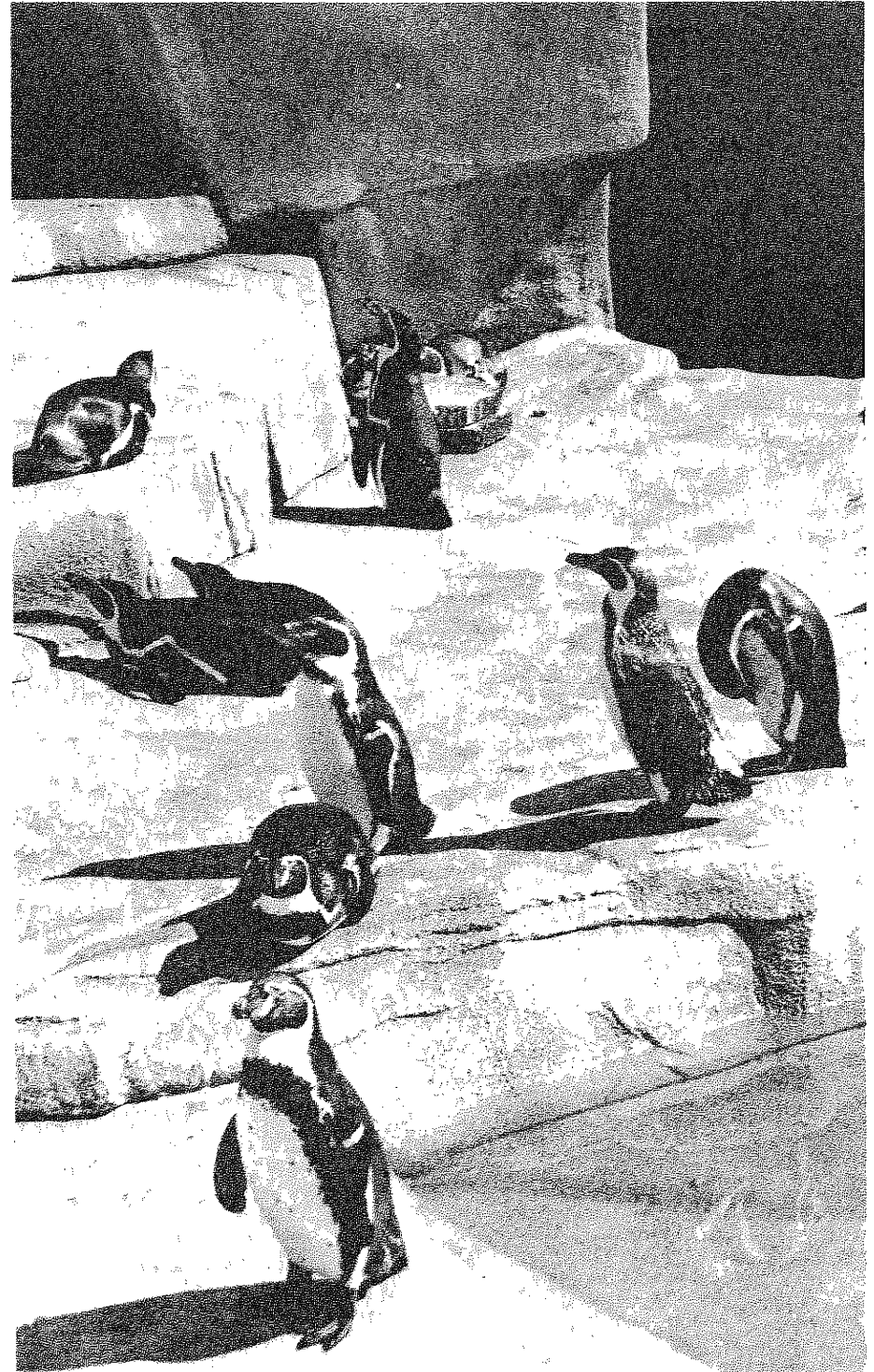
Penguins developed from flying ancestors in the remote past. Though they lost the power of flight 100 million or so years ago, they can still utilize the wings in locomotion in an extremely efficient manner — penguins literally "fly" through the water. Being highly specialized for a marine existence, they are more at home under the sea than on the surface. Their flippers become paddles; their heavy webbed feet act as rudders. In the Aviary building of our Zoo, they can be seen to shoot forward on the upward stroke, exhibiting the total mastery of underwater flight. When feeding in the wild, they dart about amid schools of food animals with great agility. Fish, squid and shrimp are penguins' principal food, all of which they catch under water.

Basically, penguins leave the sea only to molt and to breed. On land, they hop or waddle along clumsily with short steps, appearing so vulnerable. Several species of predatory birds harass them on their breeding grounds, robbing eggs and chicks. Adult penguins, however, did not have dangerous land predators until the arrival of man.

Long before Europeans discovered penguins, peoples of their native lands hunted them. It is doubtful, though, that native predation had much effect. The encroachment of civilization is rarely good for wildlife, and it is no exception for penguins. The first encounter on record between Europeans and penguins was not a pleasant one. Late in 1497, Vasco da Gama and his men rounded the Cape of Good Hope and reached a bay, where they stayed briefly. On one island they found black-footed penguins:

"(On the island) . . . there are birds as big as ducks, but they cannot fly, because they have no feathers on their wings. These birds, of whom we killed as many as we chose, are called Folylicayos, and they bray like asses."

This was merely the beginning of the ex-



Milwaukee County Zoo Photo

ploitation which had its heyday during much of the 19th century and well into the 20th. Penguins were easy prey because of their inability to fly and their relative lack of fear. They were hunted for their meat, their blubber and their skins; their eggs were marketed and their droppings harvested as fertilizer.

The most extensive slaughter was for oil obtained from the thick layer of fat. For instance, beginning in the 1890s, on Macquarie Island off New Zealand, one commercial operator cropped about 150,000 penguins per year for more than a quarter century.

Egg gathering also had a devastating effect on some species. On one raid alone, a total of 56 barrels of rock-hopper penguin eggs was taken; one ship's crew gathered 50 barrels of Magellan penguin eggs; in the 1890s, the annual harvest of black-footed penguin eggs from one small island alone was said to be 300,000; and so the list goes on. Considering that most species have a clutch of two eggs and only occasionally one or three, it is hard to comprehend how breeding colonies survived such an ordeal.

Fortunately, not one species of penguin has become extinct due to man's activities.

Wholesale slaughtering and egg gathering on a commercial scale have ceased. However, some populations of penguins are still subjected to dangers, old and new: Man introduced predators, including dogs, cats, hogs and Norway rats, into areas occupied by breeding colonies of penguins. In more recent years, oil spills of wrecked supertankers wiped out unknown thousands of penguins.

Most penguins breed in remote, less populated places. Off the west coast of South America and the west and south coasts of Africa, penguins and flying oceanic birds have been nesting on islands for many centuries. Those birds are producers of guano, naturally desiccated dung which is extensively sought as best of organic fertilizers. Although harvesting of guano may not be as intensive as in former days, it is another human activity unfavorable to penguins. Occasionally, the homes of penguins have been dug up and removed. Thus, the industry has driven penguins from many of their nesting grounds, and contributed to a substantial decline in their numbers.

One of the species that has suffered such assaults is the Peruvian penguin, or more commonly, the Humboldt penguin, named after Baron Friedrich Heinrich Alexander von Humboldt (1769-1859).

Native to the west coast of South America, they are also under the adverse effect of yet another activity of man — overfishing. It has been said that fish resources, mainly anchovy and Spanish sardine, cannot seem to recover. This puts the penguins in direct competition with man over the food source.

The United States Fish and Wildlife Service lists only one penguin species as endangered, namely the Galapagos penguin, whose population is small. However, it lives in a less frequented area. According to Frank Todd, Corporate Curator of Birds at San Diego Sea World, the Humboldt penguin is more vulnerable than the Galapagos penguin. With an estimated population of 15,000 to 20,000 birds it is only a matter of time, he predicts, that the species will be officially classified as endangered.

It appears that importation of Humboldt penguins will become increasingly difficult. The importance of captive propagation cannot be overemphasized. Within the United States, San Diego Sea World has been most

successful in breeding the species. Currently it keeps 12 to 13 breeding pairs plus 25 or so juvenile birds, and raises 10 to 18 chicks every year. Outside San Diego, however, it is a different story.

Recently Steve McCusker, General Curator of Washington Park Zoo in Portland, Oregon, completed a preliminary report on Humboldt penguins in U.S. zoos, exclusive of San Diego Sea World. The report reveals that, of the 105 living specimens, about 30 percent are captive-hatched, indicating that zoos still rely largely on imported birds. There are only 19 living proven breeder birds; from 1969 to 1983, 45 chicks hatched and 30 of them have survived.

Although the overall picture is rather bleak, it is gratifying to note that our Zoo is listed as one of the three zoos that have successfully bred the species during 1983. We certainly have come a long way.

In 1977, Krause Milling Company donated an outdoor Humboldt penguin exhibit to the Zoo. On 16 February of that year, four specimens, including two immature ones, arrived; on 25 October, 20 more specimens, including eight immature birds, arrived. We presume that all these birds, purchased from an importer in Florida, were captured in the wild. Most immature birds appeared to be in rather poor condition on entry.

Penguins are notoriously susceptible to aspergilosis, a disease of the respiratory pathways caused by a mold. This could create a problem comparable to tuberculosis, a common killer in humans scores of years ago.

On 30 December 1978, the disease began to take its toll. A vaccine, developed at the time, did not do the job. Blood work was done to determine the severity of infection; an anti-fungal agent was used with a varied degree of success. Coupled with secondary problems such as salmonellosis, severely infected birds eventually succumbed. It took almost a year to stabilize the conditions, at which time five birds survived.

Later, four of the birds showed breeding behavior. Two of them paired up and reproduced in 1981 and again in 1982, but chicks did not live. In the wild, inexperienced breeders lose most of their eggs or young; it may take a few years before they are able to raise viable chicks. There was another factor in our Zoo. It became apparent that the nesting

area in the enclosure required some re-vamping. Based on input by Janet Phipps, a Johns Hopkins University Ph.D. candidate, we redesigned the nesting area. We also took her advice, and improved the diet for our birds.

It was a rewarding experience to observe the parents raise two chicks that hatched on 19 April 1983. Our birds had a good start. In theory, however, we owe at least 17 more birds to the species. It will take a few years to "pay off the debt."

In June of 1983, Dr. Boese discussed the possibility of expanding our breeding program by receiving birds from Sea World of San Diego. It was agreed that Frank K. Todd would review our capacity and suggest ways to improve breeding potential.

Later in the summer, Frank Todd visited our Zoo to see the Humboldt penguins. According to Frank, our enclosure is structurally sound, but must be renovated to maximize its potential. His suggestions include: Enlarge the pool within the present confinement, to increase the holding capacity; erect rocky cliffs on pillars over the enlarged pool in the front part of the enclosure, which increases the land area, enables penguins to "belly flop" and at the same time, bringing them up closer

to the viewing public at eye level; build burrows for nesting; and add planters to break up the sterile appearance of the exhibit and to simulate the natural habitat of the species. He estimated the total cost to be around 50,000 dollars.

In Frank Todd's opinion, the renovation will enable us to accommodate up to 10 breeding pairs. In order to do so, a few non-related specimens will be needed. He recommended further, that we formulate a program to eventually become one of the regional centers for propagating Humboldt penguins in the United States.

In old days, such valuable animals as Asian elephants, baby gorillas and penguins were readily available on the market. Meantime, wildlife populations were steadily dwindling due to human encroachment. In some cases, prices of zoo animals multiplied within a few years. Moreover, international treaty and federal laws pertaining to wildlife trades have become increasingly stricter, further limiting zoo animal traffic.

The Zoo staff has made a commitment for the Humboldt penguin program, an exciting, challenging endeavor. We hope that this program will also serve as a model for future development of the Zoo's bird department.

Annual Appeal

Penguin: any of an order of flightless birds found in the southern hemisphere having webbed feet and paddle-like flippers for swimming and diving.

Appealing: to be interesting, attractive, etc.; arouse a favorable response.

Our little Humboldt's penguins are undeniably cute and certainly fit the description of "appealing." Their antics on land and their gracefulness in the water have provided fun and entertainment for all of us at one time or another.

Humboldt's penguins are a threatened species of the penguin family and need our attention. Our Zoo hopes to take part in a joint venture with Sea World in San Diego to breed a number of these flightless birds.

Through our Annual Appeal, we hope to raise money to provide an exhibit designed to facilitate the breeding of this vanishing species. We know this is a big project for these little creatures and we hope we can make it a reality. We do not want them to become an endangered species. Your generosity and support will be appreciated by them and most certainly by us.

NEW ADDITIONS TO ANIMAL COLLECTION

New Polar Bear Arrives at Zoo

by Kerry J. Bublitz,
Public Relations Coordinator

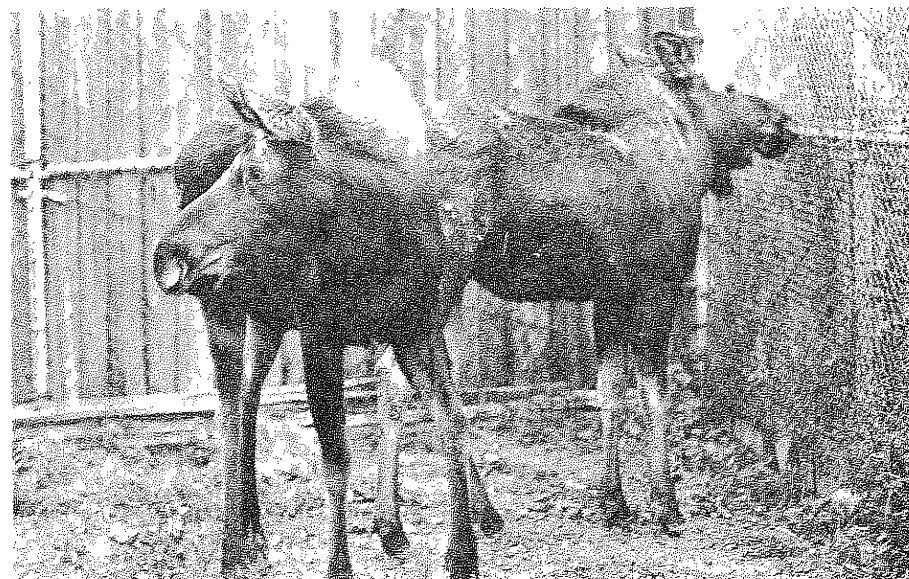
The extended weather forecast for Tuesday, November 8, was cold. Perfect weather for the polar bear who was scheduled to arrive that day between 8 and 8:30 a.m. at the Milwaukee County Zoo.

The female yearling was one of two cubs born at the Omaha (Nebraska) Zoo. Both cubs were purchased by the Detroit (Michigan) Zoo and will be transported to their new homes this week.

The female, who as yet does not have a name, will join Cirrus II, the only polar bear presently on exhibit at the Zoo. Her sibling will make the Detroit Zoo his home. She is on breeding loan to the Milwaukee County Zoo.

The polar bear, who was raised by her mother, should be approximately half her adult size according to Zoo officials. Adult female polar bears have an average weight of 680 pounds and an average height of between seven and eight feet.

Before joining Cirrus II on exhibit, she will be quarantined behind the polar bear exhibit.



Zoo Receives Two New Moose

by Kerry J. Bublitz,
Public Relations Coordinator

Chocolate mousse at the Zoo? Well, not exactly. Canadian moose or Alces Alces Americana is actually correct.

The Milwaukee County Zoo received two female moose, on Monday, November 14, 1983. Animal dealer, John Banks of Lorena, Texas, delivered the pair who were held at Okanagan Game Farm Ltd., Penticton, British Columbia, Canada, before being transported.

The moose were orphaned in spring, 1983. Probable birth was spring, 1983.

The moose will be quarantined for a month to establish that they are free of parasites. Once that is determined, they will be put on exhibit with the Zoo's present moose, Tundra and Tamarack.

Adult female moose weigh between 600 and 1,800 pounds and height is five to six-and-a-half feet.

Zoo Announces Animal Election Winners

by Kerry J. Bublitz
Public Relations Coordinator

Drum roll, please. The votes have been counted in the 1983 Zoo Election. The winners are: the giraffe, the siberian tiger and the snow monkey.

The giraffe won by a close margin over the elephant in the favorite large animal

category. They were neck and trunk until the last ballots were counted. The giraffe finished on top by seven votes. The final tally: giraffe, 385; elephant, 378; hippo, 106.

The voters' favorite feline (cat) is the siberian tiger. The tiger, 362 votes, had competition from the jaguar who garnered 338 votes. The clouded leopard and the mountain lion, also in the category, received 165 and 153 votes, respectively.

Returning for the second consecutive year as the favorite Milwaukee County Zoo animal is the snow monkey. This was a write-in category. The snow monkey received 137 votes followed by the polar bear with 39 votes and the gorilla with 30.

Winners will have special plaques placed at their exhibits.



Goat Barn Rebuilt with Help From Contributions

Thanks to the generosity of the Milwaukee Community, the Children's Zoo goat barn is being reconstructed.

An early morning fire on March 9, 1983 destroyed the barn, one of the most popular attractions at the zoo for children and adults. The 75 goats and sheep have been housed in the cow barn until construction of the new facility is completed.

Contributions to the goat barn fund poured in from animal lovers of all ages. Sixth graders

from Mr. Patrick Dean's Atwater School class raised \$100 in a zoo "tourney" and presented their check and a silk screen poster of endangered species to Zoo Director, Gilbert K. Boese. A major gift was also received from the Stackner Family Foundation.

The Zoological Society of Milwaukee County matched the donations sent in to make the \$25,000 goat barn project a reality.



Goat barn following tragic fire.



The goat barn restored.

Dave Demmer's Photo

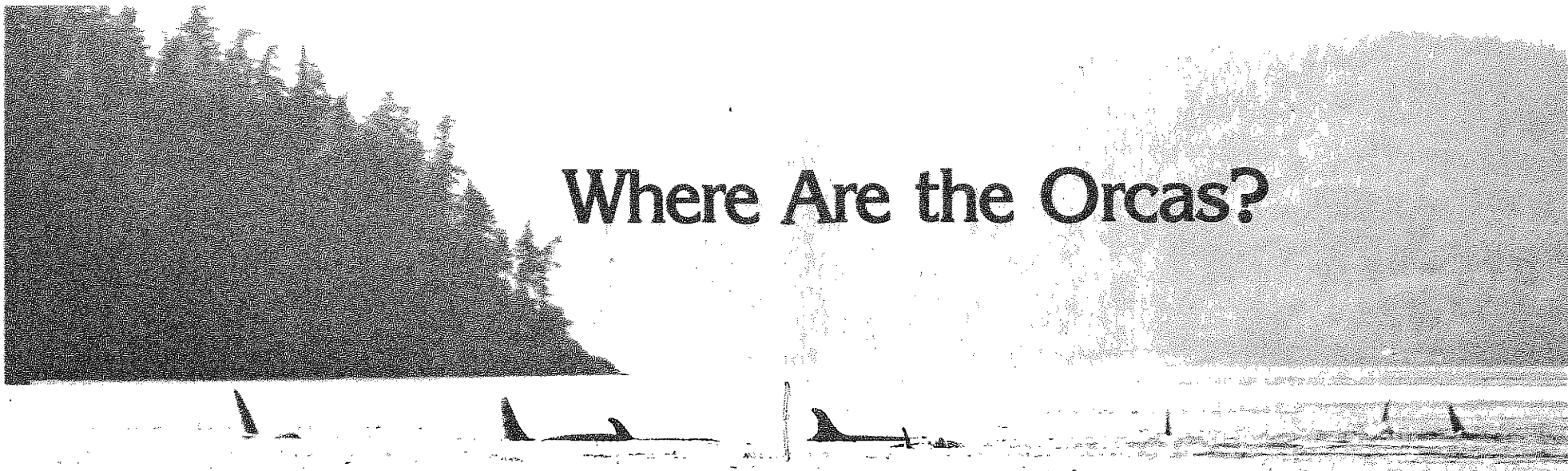


Mr. Patrick Dean, 6th grade teacher presenting Zoo Director Dr. Boese with their donation and a print entitled "Endangered Species."



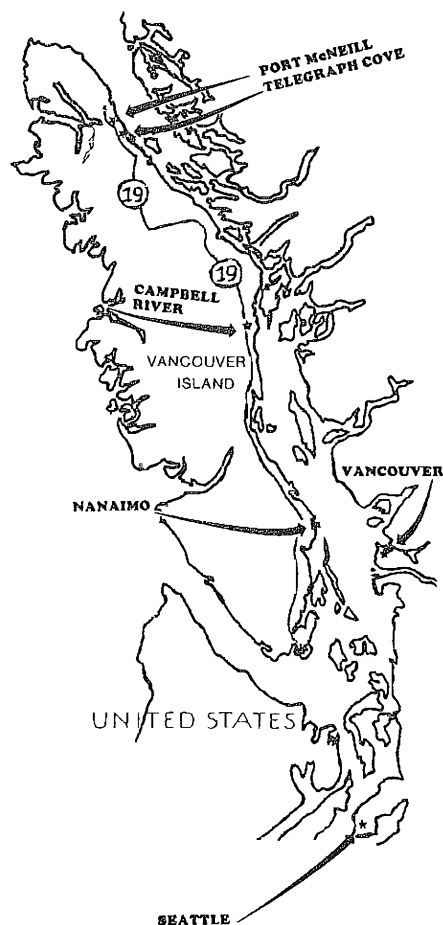
Shorewood's Atwater School sixth grade with Dr. Gilbert K. Boese, Zoo Director.

Where Are the Orcas?



Our enthusiasm builds as a "pod" appears.

Mary Beth Carr Photo



by Ken Kawata, General Curator,
Milwaukee County Zoo
Photos by Mary Beth Carr,
President, Zoo Pride

The sky was overcast. I must have dozed off for awhile. "Rocky" the van was still headed north on Highway 19, the two-lane, winding main thoroughfare on the Island. The northern half of Vancouver Island runs parallel to the mainland of British Columbia, westernmost of the Canadian provinces, with its islands and fjords. I was in a whale watch tour group. After the American Association of Zoological Parks and Aquariums (AAZPA) annual conference in Vancouver is September 1983, 22 of us, consisting of zoo and aquarium directors, staff members, zoo animal suppliers, volunteers and their spouses took the trip. Milwaukee was well represented by Lillian Ramaker, Executive Director of the Zoological Society, Mary Beth Carr, Zoo Pride President, Zoo Pride Librarian Jean Zabel and myself. Departing from our overnight stay in Campbell River (population 15,800), our vans were traveling further north to Telegraph Cove, 300 miles or so from Vancouver.

I was falling asleep again when "Rocky" came to a sudden stop with a screech. "A bear!" Our driver exclaimed. Sure enough, a young black bear was crossing the highway. I had seen neither a bear nor a killer whale in the wild before. A good omen, I thought.

Via a gravel road it was nearly noon when we arrived at Telegraph Cove, a rustic fishermen's wharf with about a dozen houses. There we were introduced to the crew and Skipper Jim, a friendly, well-built, rugged man with reddish-blond hair. After awhile we sailed the 60-foot motor vessel Gikumi. Surprisingly, the waters were calm — more calm by far than Lake Michigan.

As we gradually settled down, Debbie Ford, our guide, emerged from the cabin. This young Australian lady and her husband, John, a University of British Columbia

Ph.D. candidate, are in the midst of research which is continually discovering secrets about the communication system of the orca, or the killer whale. She briefed us on the orcas:

The largest of the dolphins, their length averages 27 feet for males and 23 feet for females. The color is basically black above, distinguished from a white underside. There is a conspicuous white spot behind the eye, but the best field mark is the fin, which in males may reach six feet high.

Orcas occur in all parts of all oceans, limited by the edge of the icepack. They travel in the basic social unit called a pod, a highly stable and probably permanent group. The average pod has between eight and 15 members. Individual orcas can be recognized by noting the nicks and scratches on the dorsal fin, and on the pale gray "saddle patch" behind the fin. It is unlikely that the total population in British Columbia is larger than 350 or 400 individuals at most. They are usually easily approached.

Question, someone said. What should we watch for? Dorsal fins and the sight of "blow", Debbie said. Expectations built up; the mood was there.

Debbie lowered a hydrophone, or underwater microphone, explaining that orcas are at most

times highly vocal animals. Shortly, we heard the shrills of their intercommunication, indicating that they were very close. Our crew member Bill took off in a small motorboat to look for the whales. We anticipated sighting them within minutes. An hour passed. We then cruised among the islands. But orcas were nowhere to be found. Moreover, we lost their sound.

Suddenly two dark shapes rose from the sea. Like bullets they darted alongside Gikumi, as if to play tag with us, then with a splash they were gone, just as quickly as they appeared. "Dall's porpoises," Debbie told us.

But where are the orcas?

I should have brought a winter jacket. I sipped hot coffee, dug my hand deeper into the pocket and lit up a cigar. Sitting aft and prompted by the Dall's porpoises, I daydreamed of porpoises in aquaria and oceanaria.

"If someone had conducted a survey 30 years ago to determine which of all the animals was considered smartest and friendliest and was most highly respected by man, there is little doubt that the dog would have received the most votes. Today a similar poll would almost certainly show the porpoise in first place," wrote Forrest G. Wood in a book published in 1973. The increase in the popularity of porpoises has been matched by the growth of knowledge about them, which I suppose was gained mainly in captivity.

It started at the Marine Studio, the world's first oceanarium opened in 1938, which later was renamed Marineland of Florida. Wood was curator of the Marineland Research Labora-



Mary Beth Carr Photo

Left to right: (standing) Lillian Ramaker, Executive Director of Zoological Society of Milwaukee County, Ken Kawata, General Curator of Milwaukee County Zoo, Jean Zabel, Zoo Pride Historian on board the Gikumi.



Orcas were close enough for us to photograph "saddle patches" behind dorsal fins.

tory. There, a colony of bottle-nosed dolphins was maintained, enabling scientists and the public alike to closely observe them. To the millions of visitors who flocked to Marineland and other oceanaria, the most intriguing fact about dolphins was their playful and friendly nature. The new image spread gradually among a widening public. It was not until the 1960s, however, when the orca entered the picture.

One theory has it that in one Scandinavian language, orca was called "whale killer," and it was mistranslated to "killer whale." The Scandinavian term does make some sense, because the orca feeds on a wide variety of prey which consists of squid, fish, sea birds, and marine mammals including other whales. This, however, does not mean that seals and fellow whales make up the orca's daily diet. According to studies, they eat mostly fish in temperate waters.

Somehow, their unusual feeding habit led to tales of their ferocity being greatly exaggerated. Even the species *orca* (scientific name) comes from the Latin word *orcus*, which means the lower world, indicating it is the demon dolphin. Orcas have long been portrayed as man-eaters, although there is not a single record of man-eating by them.

The orca has been depicted and visualized as the wolf of the sea, an animal that kills grotesquely. (In reality, neither orca nor wolf is the villain of legend, and both are highly social animals.) As late as in 1954, a noted zoologist described the orca as "the most bloodthirsty of marine mammals", "fiercest of their clan" and "the terror of the deep." He went on to say, "No animal is more aptly named than the killer whale." Too often, animals exist more in imagination than in fact. As Dr. Sharon Proctor, Education Director of the Vancouver Public Aquarium, puts it, orcas don't need human-type characteristics. "Killer whales deserve our respect for what they are — not for what we would like them to be."

Interestingly, it was a captive killer whale which

allowed us to discard our stereotypical image on the species.

In July 1964, Vancouver Public Aquarium collectors harpooned a young male orca in the Strait of Georgia, British Columbia, for the purpose of making a life-sized model. The harpoon entered the left side of the body and passed completely through, but did not kill him. The whale was towed to Vancouver into a hastily constructed enclosure for public display, where he lived for 86 days.

Close observations were made on this animal, later named "Moby Doll", during the period. "The most astonishing aspect of the behavior was the complete lack of ferocity or aggressiveness. At no time did it make any hostile moves towards any human involved in the capture, treatment, netting or feeding operations," reported Dr. Murray Newman, Director of the Aquarium, and Patrick McGeer of the University of British Columbia. They also noted, "The experience indicated the feasibility of maintaining and possibly training killer whales in captivity."

Indeed, stimulated by the popularity of this short-lived orca, oceanaria sought after the killer whales for display. When demands for live specimens increased, so did the opposition for capturing them, although the orca is not an endangered species. For instance, in 1983, Sea World of San Diego faced stiff opposition when it applied for a permit to capture 10 orcas in five years.

It is ironic that orcas in captivity not only helped us disprove the myth of the evil murderer, but also generated a public sentiment to protect whales. For, as columnist George F. Will says (Newsweek, 29 August, 1983), "Anyone who sees the orcas perform is unlikely thereafter to be indifferent about harm done to whales." In this respect, Will asserts, Sea World "... is mass-producing opposition to commercial whaling."

— A few puffs and a few minutes later I looked up at the gray sky. Daylight hours were



Bull and juvenile orcas.

Mary Beth Carr Photos

dwindling down to a precious few. Nearly 60 eyes, including ours and the crew's, searched above the waters in vain. Well, Captain Jim said, since we can't find orcas, let us take a walk in the forest. We were then transported by a motorboat to a nearby bight, or small recess in a bay.

As we stepped onto the beach, we found neither white sand nor waves breaking over sharp rocks. Instead, it was tender green grasses that carpeted the placid beach, like a Wisconsin meadow in May. I dipped my hand in the calm waters and licked it, to make sure it was salt water.

Walking through the deep mat of mosses, ferns and age-old dead branches of the forest floor was an added bonus to this trip. The coastal area is clothed in forest, resulting from warm ocean current. In the sense that it is a land of towering trees, it resembles a tropical rainforest, such as the one in the Amazon Basin. We were, however, in a temperate zone rain forest, with a softer and more gentle appearance. Inside, valleys were choked with vegetation great and small, and littered with rotting logs, boulders and botanical debris, presenting an exotic, even an unreal landscape. We noticed large, dark green slugs crawling on mosses. A lumber company wants to "develop" this bight, Captain Jim said, but it is his wish that this piece of forest be preserved for the orcas. Why the forest? But, that is getting ahead of the story a bit.

Back on board Gikumi. Everybody seemed tired and down. We had left Vancouver about 6:00 p.m. last night, got to bed about midnight and then up at 6:00 a.m.

It was 5:34 p.m. when someone shouted, "Orcas!"

With a burst of energy we dashed to the edge of the boat. A silent smile of spontaneous pleasure spread across Debbie Ford's face as she quickly pulled up a pair of binoculars. Several hundred yards off the side of Gikumi, dark round heads and tall fins emerged,

and submerged, as if in a slow motion picture. Clouds of vapor arose as the air in their lungs was expelled; clear, sigh-like sounds "pfff..." reached our ears.

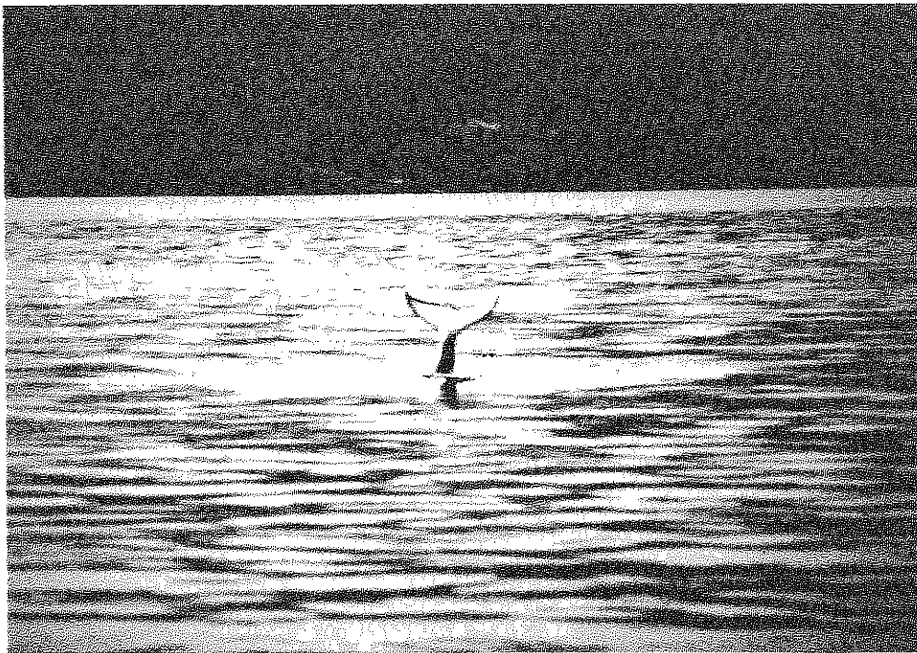
Minutes passed. We spoke little. Behind Gikumi, another group of round heads appeared, parting calm waters. Cameras kept clicking. More minutes passed. It became apparent that orcas were scattering over a wide area around us.

Land of trees and fjords, however, seemed to be an unlikely backdrop for encountering the orcas. We were surrounded by a protective chain of islands; almost all were heavily wooded, forming a labyrinth of sheltered channels. Steep cliffs dropped off into many fathoms within a few yards of the shore. Here orcas were seen in the valley, many miles away from rough ocean waters with endless miles of horizon.

Clouds were breaking up rapidly. Rays of sunlight filtered down first, and we watched the big fireball sinking into a narrow channel between two pieces of land. An orca was moving southwards, its tail reflecting the setting sun. Gikumi began sailing back to Telegraph Cove. Still excited, one of our members asked Debbie how many orcas we had seen. Between 25 and 30, she replied.

After a night at a hotel in Port McNeill (population 2,500), we took another trip bright and early on 25 September. Before too long, we found dozens of orcas against the morning sun. In a way it is comparable to an experience when one encounters a herd of elephants in the African bush country. Both whales and elephants are large mammals. Still, whales are uniquely different. Like elephants and us, whales are warm-blooded and air breathing; yet they are fish-shaped, and water dwelling. It is this nagging paradox of nature that arouses our curiosity and interest.

Jim moved Gikumi ahead of orcas and shut down the motor. Debbie Ford then lowered a hydrophone and started recording. A small



A long awaited "fluke".

Mary Beth Carr Photo

group of orcas was approaching the stern. Almost simultaneously, tall fins slid quietly into the waters. They must be passing us, we whispered at each other, but where are they going to emerge? Minutes later, a large male suddenly surfaced about a hundred yards from the bow. Cameras started clicking again. Debbie hauled in the hydrophone; Gikumi moved up ahead of the orcas to repeat the process.

Orcas were travelling too far ahead of us, however. The sun was already high. Jim steered Gikumi around, and we began our return to Telegraph Cove. People were talking about orcas enthusiastically. I sat down away from the group, trying to warm my hands on a coffee cup. Soon, now-familiar houses of the Cove appeared under a crystal clear sky. From there, we still had a long way to go — several hours again on Highway 19 to Nanaimo, back to Vancouver by ferry, then to a hotel for the night; flight back to Milwaukee on Monday via Seattle and Denver.

A remark made by a crew member, which I wished was a false rumor, concerned me: The federal government owns this land, but a lumber company wants to clear-cut the forests; and they (the lumber company) are powerful, he said. Forestry is the main segment of British Columbia's economy. It has been widely proclaimed that 50 cents out of every dollar spent in British Columbia is generated by the forest industry.

Here lies a potential conflict between industrial development and wildlife conservation. Let us focus our eye on the inshore waters of Vancouver Island.

Each species exists as a part of an intricate community, and the health of one species may depend directly upon the presence of the entire biological community. In actuality, seemingly separated forms of life are inextricably intertwined. Removal of one element from this environment may cause a chain reaction on its inhabitants.

For example erosion, one of the immediate results of clear-cutting, washes silt down into the waters, which may threaten certain marine life; also, sudden disappearance of tree shades could discourage some fish species from staying in the area. Thus, clear-cut harvesting of forests may conceivably have a profound effect on what is likely the most abundant and easily accessible population of orcas in the world.

A possibility exists where orcas of British Columbia will need your help in the future. For strong public support may prove to be the most effective tool to ensure the survival of this nature preserve for scientific research and enjoyment.

Few Spots Open For Society Safari

Only a few spots remain on the Zoological Society's Safari to the game reserves of Sumatra, Java and Bali in Indonesia, March 24 to April 12, 1984.

This special tour, limited to 15 persons, will spend several days in Singapore with an optional stopover in Hong Kong. The highlight of the tour will be the famous Komodo Dragon on Komoda Island in the Java Sea.

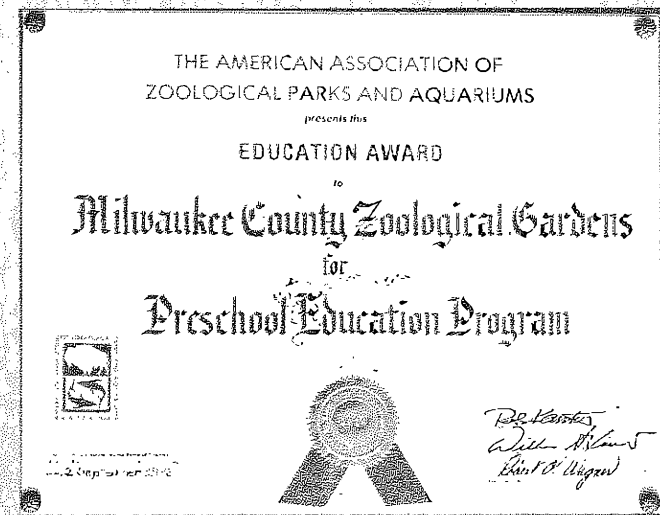
This is a trip of a lifetime!

Contact the Zoological Society office at 258-2333 for additional information.

Change of Address?

If you have moved, or are moving soon, please send your new address to the Zoological Society Membership Department, 10001 W. Bluemound Road, Milwaukee, WI 53226, or phone 258-2333. Our publications and notices are mailed bulk rate and will not be forwarded by the Post Office.

Education Preschool Award



The Milwaukee County Zoo received top honors from the American Association of Zoological Parks and Aquariums for its Education Department's Preschool Program. Funded by the Faye McBeath Foundation through the Zoological Society of Milwaukee County, the Preschool Program was chosen as the best of seven entries at the National conference in Vancouver, British Columbia, Canada, September 19-22.

This is the first time the Milwaukee County Zoo has received a major national award. The award recognizes the preschool program as the best educational program of 1983.

The award winning program was designed by preschool coordinator, Georgia

Wright, and a preschool committee to meet four goals: provide activities for preschool children to learn about animals, allow flexible learning for individual differences in growth, nurture the physical, social-emotional and intellectual development of children and facilitate speech and language competency.

The program consists of activity packets for parents to use with their preschoolers while touring the zoo. There are also follow-up activities to complete at home. Each packet encourages children to learn a specific animal-related concept. The packets are being distributed through the Education Department. If you would like more information about these packets, contact the Education Department at 771-3040, ext. 155.

Waters of Mexico Beckon Members

Baja Whale Watching and Natural History Expedition, February 11-18, 1984

The wilderness water of Mexico's coast beckon those Zoological Society Members of adventurous spirit. The waters teem with countless species of resident grey fish and the warmth attracts migratory grey whales. You will drift along with them, listening to their sounds and observing their behavior.

You will travel aboard the 80' DON JOSE during the week's journey. The itinerary will be flexible to allow the opportunity for unexpected experiences. The days will be spent whale watching, snorkeling or relaxing in the sun. Our main purpose will be to observe the grey whale and other marine mammals and birds.

The following itinerary is meant to give you the timetable for the first and last days of the trip with some idea of the probable course in between.

Day 1. The group will be met at La Paz airport and taken by charter bus to Magdalena Bay. Our destination . . . Puerto Lopez Mateos to

board our ship the DON JOSE.

Day 2-6. Cruising out of La Paz we will search the grey whales while making daily stops at various inlets for snorkeling, hiking and beach combing or birdwatching. We will have the opportunity to observe marine mammals as well as the grey whales and will be an excellent chance to compare the variety of species in their own environment. Evenings will be spent on the ship or in tented camps on the beach.

Day 7. Upon arriving back in La Paz, we will be transferred to the Los Arcos Hotel for a farewell group dinner and the evening.

Day 8. We will be transferred to the airport for our return flight.

Price Per Person . . . \$1700.00 including round trip air with a portion being a donation to the Zoological Society and a tax donation.

For more information, please call the Society office at 258-2333.

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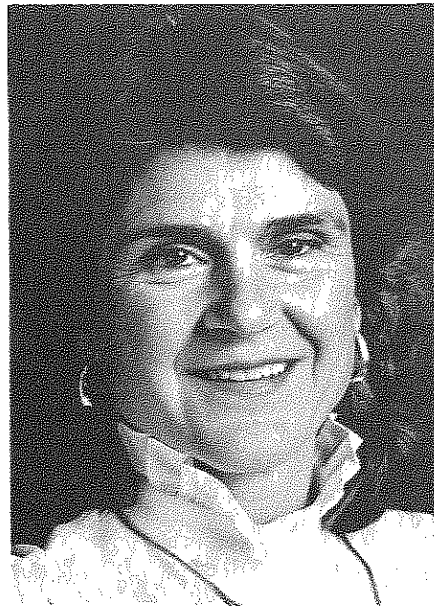
You are invited to join these members and patrons in their effort to maintain the excellence of the Milwaukee County Zoo. Inquiries are welcome: Zoological Society of Milwaukee County 258-2333.

Society Elects New Officers and Directors

The Zoological Society of Milwaukee County Board of Directors elected the following new directors at the Annual Business Meeting, October 11, 1983: Mrs. Patricia B. Dalton, Mr. Tony Petullo, Mr. C. Edward Stevens and Mrs. Sandi Moomey.

Officers for 1984 include: Richard D. Gallun,

President; Gene E. Soldatos, Vice-President; James H. Kuehn, Secretary; Robert A. Kahlor, Treasurer and Richard D. Gebhardt, Immediate Past President. Other members of the Zoological Society of Milwaukee County's Executive Committee are: John A. Hazelwood, Allen W. Williams, Jr. and Thomas S. O'Byrne.

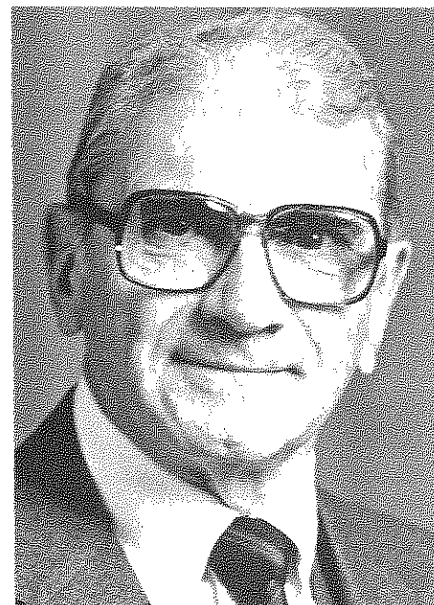


Pat Dalton

David L. Denmark Photo



Tony Petullo



Ed Stevens

David L. Denmark Photo



Sandi Moomey

David L. Denmark Photo

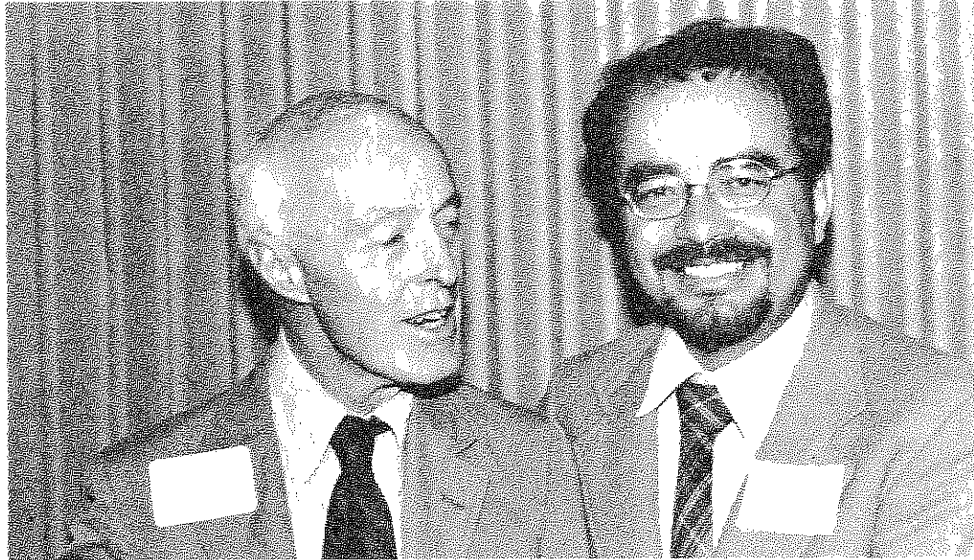
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ZOO PRIDE



Zoological Society Director George La Budde with Dr. George Archibald.

Mary Beth Carr Photo



Zoological Society Vice-President Gene Soldatos with Director Sandi Moomey.

Mary Beth Carr Photo

Zoo Pride Holds Annual Meeting

by Mary Beth Carr,
President, Zoo Pride

Zoo Pride's Ninth Annual Meeting took place on October 27th. Dr. George Archibald, Director of the International Crane Foundation captivated the audience with his marvelous slides and information about ICF's international research projects.

Messages of thanks for Zoo Pride's efforts over the preceding year were delivered by Bob Bullermann, Assistant Zoo Director, and Gene Soldatos, Vice-President of the Zoological Society.

In my annual report, I announced with "Pride" that 22,000 service hours were spent by Pride volunteers in 1983. This represents a significant increase over last year and I would like

to acknowledge the following committees for their contribution. Animal Adoption, Animal Watch, Clerical, Education, Historian, Hospitality, Information Booth, Legislation/Library, Membership, Nominating, Program, Speaker's Bureau, Special Events, Teen Volunteers, Zooming In, Field Trip, Birthday Party, Zookeeper For A Day, Do The Zoo In Winter Too, Guides, and Animal Information Carts.

Individual service awards for 500 hours were given to Elizabeth Barkow, Kay Elsen, Pat Fredenberg, Jane Haas, Dorothy Hartmann, Harris Lubenow, Dorothy Matitz, Lorraine Straszewski, Lowell Warshawsky, Joyce Weiss, Jean Zabel and Bill Zajichok. Service awards for 1,000 hours were given to "Mike" Huwateck, Chris Javins, Howard Krueger, and Helen Oberndorfer. 1,500 hour awards were given to Mary Beth Carr, Robin Higgins, and Lois Kessler. Awards for 2,000 hours, 2,500 hours and 3,500 hours were given to Judy Van Till, Ann McNeer and Sandi Moomey respectively.

While on the subject of hours, it is important to note that while 22,000 hours is an impressive number, our ultimate goal is not just to record the *quantity* of hours logged, but to provide a *quality* contribution to the zoo. And, I think that Zoo Pride has done that from day one.

Zoo Pride has 226 active volunteers representing a wide spectrum of expertise, all willing to devote their time and talents to support one of the communities finest resources — the Zoo.

Because of this fine volunteer staff and their dedication, we were able to expand our 1983 programs, and we will continue the expansion in 1984.

Do the Zoo in Winter Too!

Zoo Pride has expanded its winter programming. **Do The Zoo In Winter Too** features films in the Zoo's South Dining Room accompanied by Zookeeper talks, and Zoo Pride Guides in the Aviary, Primate Building, Small Mammal Building and Reptile and Aquarium Building.

The guides will host mini-tours every half hour beginning at 12:30 PM until 2:30 PM. Films also begin at 12:30 PM.

The dates are as follows:

Saturday, January 7th
Sunday, January 8th
Saturday, January 14th
Sunday, January 15th
Sunday, January 22nd

Sunday, February 5th
Saturday, February 18th
Sunday, February 19th
Saturday, February 25th
Sunday, February 26th

Saturday, March 3rd
Sunday, March 4th
Saturday, March 10th
Sunday, March 11th
Sunday, March 18th
Saturday, March 24th
Sunday, March 25th
Saturday, March 31st

Why not come early or stay late and take advantage of the Zoo's Cross-Country Ski trails?

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Judy Van Till

AT THE ZOO

December 1 — Cross-Country Skiing. Trails open daily, weather permitting. Equipment rental available weekends.

December 10 — Santa Arrives. Family activity, 11 to 2, caroling with Santa, ornament making. Discount admission with ornament for Zoo's tree.

December 17 — Lunch with Santa. Children, ages 4-7, meet Santa, tour Zoo, eat lunch and see live animal program, 10 to 1.

December 19-21 — HOLIDAY MAGIC Night Program. Caroling, camel walks, Santa's village, 35-foot Christmas tree, 6:30 to 8:30 p.m.

December 25 — Christmas. Zoo closed.

January 1 — New Year's Day. Zoo closed.

January-March — Zoo Pride Film Festival. Weekends. (See article for exact dates).

January 9 — Poster Contest Begins. Children, ages 7-11 eligible, may illustrate "Our Zoo in Winter." Contact Zoo Education Department (771-3040).

January 29 — SAMSON STOMP. Run 2 miles or 10 kilometers on Zoo grounds in this annual tribute to Milwaukee's famous gorilla.

February 2 — Zoo's Groundhog Appears.

February 7-11 — Valentine Days. Special sweetheart celebration culminating on Saturday, February 11, 1983.

March 1 — Essay Contest Begins. Children in 6th grade are invited to submit essays. Call Zoo Education Department for details (771-3040).

March 18-24 — National Wildlife Week.

March 21 — Essay Contest Winners Announced.

April 5 — Mandara's 2nd Birthday.

April 14 — EGG DAY. Spring fun at the Zoo involves scavenger hunt, puppet show, family fun.

April 21 — Spring Floral Display in Aviary.

ALIVE

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10001 West Bluemound

Milwaukee, Wisconsin 53226

Lillian Ramaker, Editor

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Gilbert K. Boese, Ph.D., Director

Accredited by the

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