

CASE STUDY: WRITING and EDITING

Lincoln Park Zoo – Team Leader, Interpretive Planning, Seal / Sea Lion Exhibit renovation

About Lincoln Park Zoo

Lincoln Park Zoo is a world class zoological institution located in Chicago. Rich with architectural treasures as well as award-winning immersion animal habitats, the not-for-profit zoo attracts about 3 million visitors per year who enjoy more than 200 species.

Problem

Founded in 1868, animal care buildings and exhibits throughout Lincoln Park Zoo required updating and redesign; the Seal / Sea Lion exhibition was identified for renovation.

Solution

The renovation included a redesign of the pool, inclusion and construction of a new animal care building, new animal identification signs, new interpretive signage around the exhibit and new backlit signage in the underwater viewing area. Terrie Nolinske, Ph.D. was appointed as Team Leader for the interpretive plan, which included the following responsibilities:

- Identify best practices in similar exhibits worldwide
- Research content, ideas and resources; maintain document files
- Meet with or interview experts
- Work with team of educators and animal care staff to identify main messages
- Conduct front end visitor evaluation to gather feedback on main messages
- Work with docents to develop formal docent presentation and three cart talks
- Collaborate with animal care staff to write docent talk on animal enrichment / training
- Write fact sheet on the animal care building and the exhibit renovation
- Oversee development of formal educational programs
- Write proposal for inclusion of life size bronze sculptures of seal and sea lion
- Negotiate contract with artist commissioned to create life size sculptures
- Serve as liaison between artist and animal care staff to ensure anatomical accuracy
- Collaborate with team to write copy for interpretive and identification signs
- Ensure that all interpretives complied with the Americans with Disabilities Act; incorporate sculptured tactile elements into identification and underwater signage

Results

Everyone loved the new Seal / Sea Lion exhibition. During summative evaluation children loved touching the life sized sculptures, saying, "I'm as tall as the sea lion!...Feel his flippers; my arm is as long as his flippers!" Docents loved the three cart talks, saying "I can mix and match content to visitor ages and interests...I love giving the seal / sea lion talk now because there's so much to talk about." Visitors with low vision were profuse in their thanks, noting, "Finally, a way to experience the exhibit without seeing!...love to feel the skull, the texture of the fur and the ears. Thank you!" Overall, visitors reported feeling pleased with the colors, the design and multiple messages on the backlit signs in the underwater viewing area.

Testimonial

"Terrie approaches her work with energy and passion. She is articulate and has strong writing skills. She is creative and highly organized." *Kevin Bell, CEO, Lincoln Park Zoo, Chicago, Illinois*

Seal / Sea Lion Exhibit Renovation

Excerpts of Copy for Interpretive Signage Examples of completed signs and sculpture

Seal/ Sea Lion Pool – Interpretive Signs

Ground level

1 – Telling seals and sea lions apart	On wall of Animal Care building
2 – ID sign – Harbor seal	On rail
3 – ID sign – Gray seal	On rail
4 – ID sign – California sea lion	On rail
5 – Seals and sea lions are mammals	On rockwork at west end of rail

Bleacher level

1 – Enriched environment	On wall or rail at west end of bleachers
2 – ID sign – 3 species	On rail - center

Other signs:

2 copies:

Training session – time announcement	Movable; ground level and bleacher level
Don't throw anything in the pool	Ground level - rail

Ground level sign #1

Can you tell the difference?

Seal		Sea Lion
no	<i>Ear flaps</i>	yes
short	<i>Front flippers</i>	long
always point backward	<i>Rear flippers</i>	can swing forward
moves in waves like a caterpillar	<i>Movement on land</i>	walks on all fours
powered by rear flippers	<i>Swimming</i>	powered by front flippers

[Tactile element: life sized sculptures]

bronze bas-relief sculptures of harbor seal, California sea lion – full body shown as if moving on land

Ground level sign #2

Harbor Seal

Phoca vitulina

This black-and-gray spotted seal is the smallest of the species in the pool. Watch how it spirals and swims upside down.

Range: Northern Atlantic and Pacific Oceans

Habitat: coastal waters, inshore rocks, sandbars, ice floes

Diet: fish, squid

Weight: females up to 200 pounds, males up to 265 pounds

Longevity: up to 32 years

Gestation: 10-11 months

Offspring: one pup per birth

[Visual elements:]

- Globe showing range in red
- Close-up photo of head of animal, showing distinguishing, observable characteristics, such as head shape, lack of ear flaps, eye size, coloring

Fact sources:

LPZoo Harbor Seal fact sheet

Macdonald Encyclopedia of Mammals, p. 277

Walker's Encyclopedia, p. 1117-19

Ground level sign #5

Are you a mammal?

Yes! You share these traits with seals and sea lions, who also are mammals.

[labels on illustration]

- | | |
|----------------------------------|---|
| - Has hair | [line points to hair-covered surface of adult's body] |
| - Breathes air | [line points to adult's nostrils] |
| - Creates its own body heat | [line points to center of adult's body] |
| - Females give birth to babies | [line points to pup] |
| - Females nurse babies with milk | [line points to adult's ventral surface, where teat would be] |
-

[Visual element:]

- Photo of an adult female seal or sea lion and her pup – if in water, adult should have head above water so it's clear that animal breathes air
-

Bleacher level sign #1

[sign 1A]

The zoo environment helps seals and sea lions feel at home . . .

We want these animals to behave as they do in the wild, so we provide:

- a large *saltwater pool* for swimming
- *cool water* all year round
- a *rocky coastline* for retreats on land
- a *natural and varied diet* of fish and other seafood
- the *company of other animals*
- a *breeding beach*, since they breed and give birth on land

[sign 1B]

. . . and we work with the animals to keep them healthy and well fed

At feeding time, keepers interact with the seals and sea lions. During each session:

- The animals *follow commands and receive food rewards* for completing behaviors.
 - Keepers and vets *check flippers, mouth, eyes, and skin*.
 - The animals get used to being touched and they *learn to cooperate* for future health exams.
 - Keepers make sure each animal gets an *equal share of food and vitamins*.
-

[Visual element:]

- sign 1A: photo relating to enriched environment – group of sea lions on a real rocky coast
- sign 1B: photo of keeper with seal in training exercise, perhaps showing a health-related behavior, such as the seal opening its mouth

Underwater panel #4

Seals and Sea Lions – Adapted to Life in the Sea

Look for...
the traits of a hunter

How do they locate and catch their prey?

- *Eyes with large pupils* see well in dim light.
- *Sensitive whiskers* help locate prey by feeling vibrations in water.
- *High-speed swimming* helps them chase fish.
- *Pointed teeth* grab and hold prey.

[label with skull]

This gray seal's *sharp teeth and large jaws* can grip prey until it's swallowed whole or thrashed to pieces. The seal's *forward-facing eyes* can judge depth – a must for catching prey.

[fact – tidbit – set somewhere on panel]

Here at the zoo, each seal and sea lion eats about ten pounds of fish a day.

[Visual element:]

- Illustration (or photo) of seal or seal lion chasing prey – school of fish

[Tactile element:]

- skull model of seal – showing sharp teeth, large eye sockets (gray seal? harbor seal? – either is OK, change label copy to match name if harbor seal is used)





Gray Seal Skull

An unusually high nasal cavity gives the gray seal's head a distinctive, elongated shape.

Large, forward-facing eyes help the gray seal to see underwater.

Sharp teeth and large, powerful jaws enable the gray seal to catch fish and other prey.





Harbor Seal

Phoca vitulina

This black-and-gray spotted seal is the smallest of the species in the pool. Watch how it spirals and swims upside down.

Range:	Northern Atlantic and Pacific oceans
Habitat:	coastal waters, inshore rocks, sandbars, ice floes
Weight:	females up to 200 pounds, males up to 265 pounds
Diet:	fish, squid
Longevity:	up to 32 years
Gestation:	10-11 months
Offspring:	one pup per birth



What makes them such great swimmers?

- Streamlined, submarine-shaped bodies cut through the water.
- Powerful flippers and strong muscles provide speed.
- By tilting their flippers, they can steer, spiral, and swim upside down.



Look for...

Sleek bodies and webbed flippers, perfect for swimming underwater.

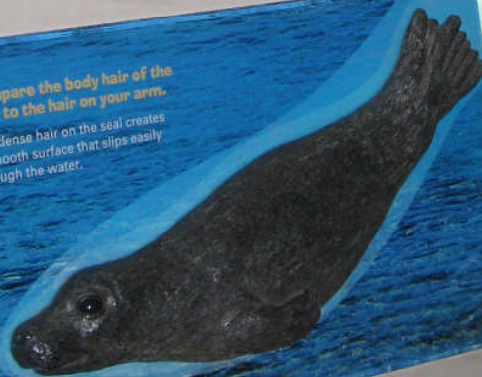


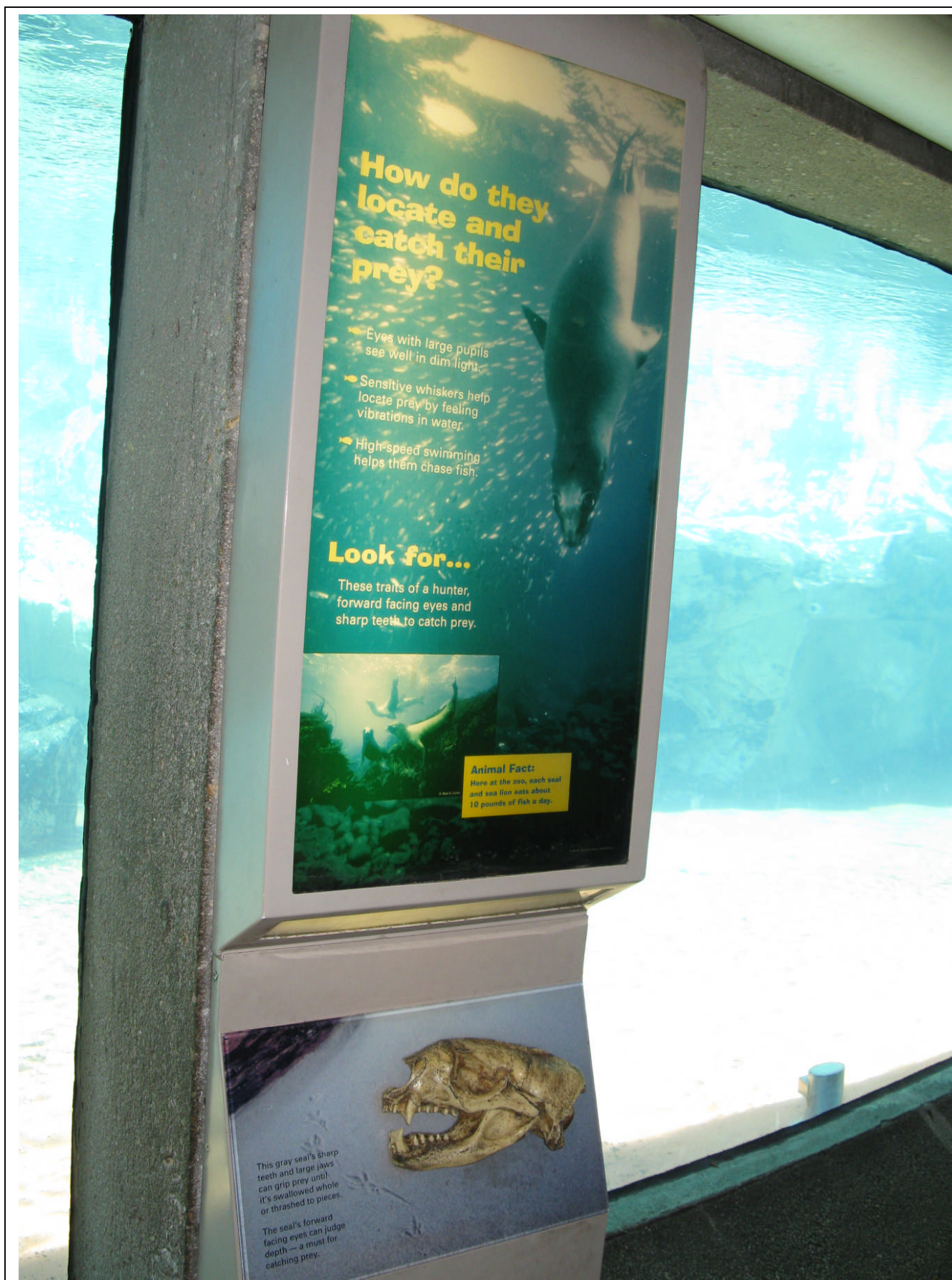
Animal Fact:

Sea lions can swim at speeds of up to 25 miles per hour.

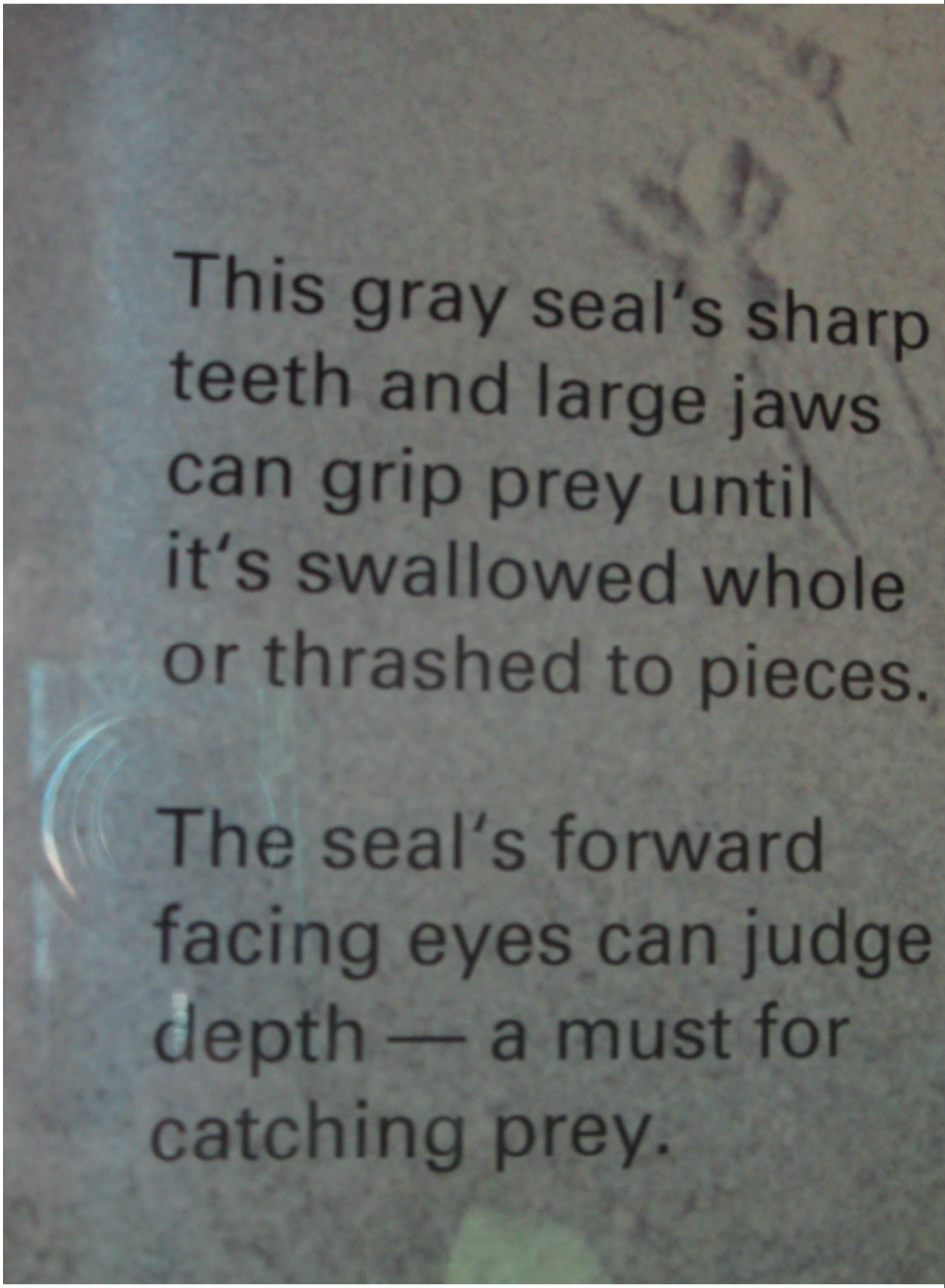
Compare the body hair of the seal to the hair on your arm.

The dense hair on the seal creates a smooth surface that slips easily through the water.





Select Interpretives for Seal / Sea Lion Exhibit renovation, Chicago's Lincoln Park Zoo
Terrie Nolinske, Ph.D., Team Leader, Interpretive Planning

The background of the text is a close-up, slightly blurred photograph of a gray seal's head. The seal's mouth is open, showing its sharp, white teeth and large, dark jaws. The seal's eyes are visible, looking forward. The overall tone is educational and informative.

This gray seal's sharp teeth and large jaws can grip prey until it's swallowed whole or thrashed to pieces.

The seal's forward facing eyes can judge depth — a must for catching prey.





Seals and Sea Lions

Can you tell the difference between a seal and a sea lion?

Seals and sea lions both are uniquely adapted to their land and sea environments. At first glance it may be difficult to tell these marine mammals apart, but if you look closely you'll find there are several ways they differ.



Seal

- Does not bellow like a lion
- Short front flippers
- Flaps flippers underneath a tail
- Moves its head like a kangaroo on land
- Powered by rear flippers in the water



Sea Lion

- Bellow like a lion
- Long front flippers
- Flaps flippers that are angled forward
- Walks on all fours on land
- Powered by front flippers in the water