

PENNY THE HUNGRY PENGUIN CHICK

LIFE IN THE ANTARCTIC



Wolf Berger, Ph.D.
with advice from Brianna

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PENNY THE HUNGRY PENGUIN CHICK LIFE IN THE ANTARCTIC



**by Wolf Berger, Ph.D.
with advice from Brianna**

Penny wants food



**This is Penny. She wants food.
I am hungry. Please! Feed me!**



**This is Penny's mother. Her name is Jentoo.
She is coming up from the sea to feed Penny.
She walks over the rocks at the beach.
She puts out her wings for balance.**



**This is Penny's brother Meetoo.
He is hungry also.
Who will get food next?**



**Jentoo goes to Penny.
She opens her beak.
Penny puts her beak inside to get the food.**



Now Penny is tired. She has to rest.

**Meetoo is still
hungry.
Jentoo calls for
Penny's father to
bring food.**





**This is Jontoo. He is Penny's
father. He has food.
He hears the call.**

**He starts walking.
Penny's uncle Fredo
follows him.
Fredo has food
for his own chicks.**

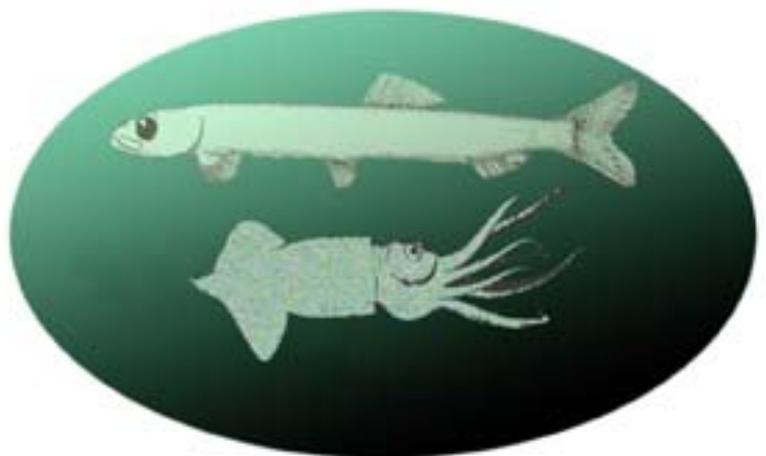




**They bring krill.
They caught the krill in
the sea.
The krill are small.
They fit into the beak
of a penguin.**

**Sometimes Penny's
father brings a small
fish or a small squid.**

Penny likes fish.





**Penny's father looks up.
It is a long way up the hill.**



**Penny's father and
Fredo go up
through the snow.
They bring the food
to their chicks.**



**Penny and her friends are waiting.
They are hungry. Which one is Penny?
Which one is Meetoo? Who will get food?**



**This time, Meetoo
gets food from his
father.**

**The parents have
no more food.
They go back to
the sea to get more
food.**



**Penny's parents
jump in the ice-
cold sea.
The krill, the fish
and the squid live
in the sea.
Her parents dive
to catch them for
food.**

Penny's neighbors



When the chicks were little, only one parent could leave to get food.

One parent had to stay because of the Big Brown Bird. He takes little penguin chicks to feed his own chicks. He is very dangerous. Watch out, Penny! Watch out, Meeto!



He has a big hooked beak. Just now he is taking a bath in the pool nearby.



Other big birds also are looking for food. They look down from the sky.

The little chicks stay close to their parent to be safe.





Penny can see her aunt Tardie. She is in her nest. She was late in laying her egg. Her chick is very small.

Where is Penny's cousin Eeny? Eeny hides from the big birds and also from the Little White Bird.

The Little White Bird steals eggs and little chicks and grabs food when the chicks are eating. Watch out, Eeny!



Penny has a nice neighbor.



**Her name is Ada. Ada is a different kind of penguin.
Can you see the difference?
Ada brings food to her chick Dallie.**

**Dallie and her sister Dellie are still hungry.
But Ada has no more food. She runs away.
The chicks run after her.**



Ada's kid brother Bert is changing his feathers. He looks silly.



Penny can see Petrella in her nest.



Petrella is very big. She has huge wings. She also has a very big beak with a sharp and menacing hook. Petrella looks for food at sea and also on the beach.

Penny is afraid of Petrella.

Penny can see Shaggie the cormorant.



She looks like a penguin.

She swims and dives like a penguin.



**But she can fly through the air!
She flies up to her nest to feed
her chick.**

**He is big and very hungry.
Please! More fish!**

Penny can see Vitta, the tern.

Vitta has her nest nearby in the cliffs.



Vitta is small but she has no fear.



**She has a sharp beak.
She flies at the Big Brown Bird and drives it away.**

Thank you, Vitta!

When Penny is big



**Penny and her friends are growing.
Soon Penny will be big like her parents.
She will get a shiny black and white coat.
She will be ready to go into the water to catch krill.**

The water will be cold.

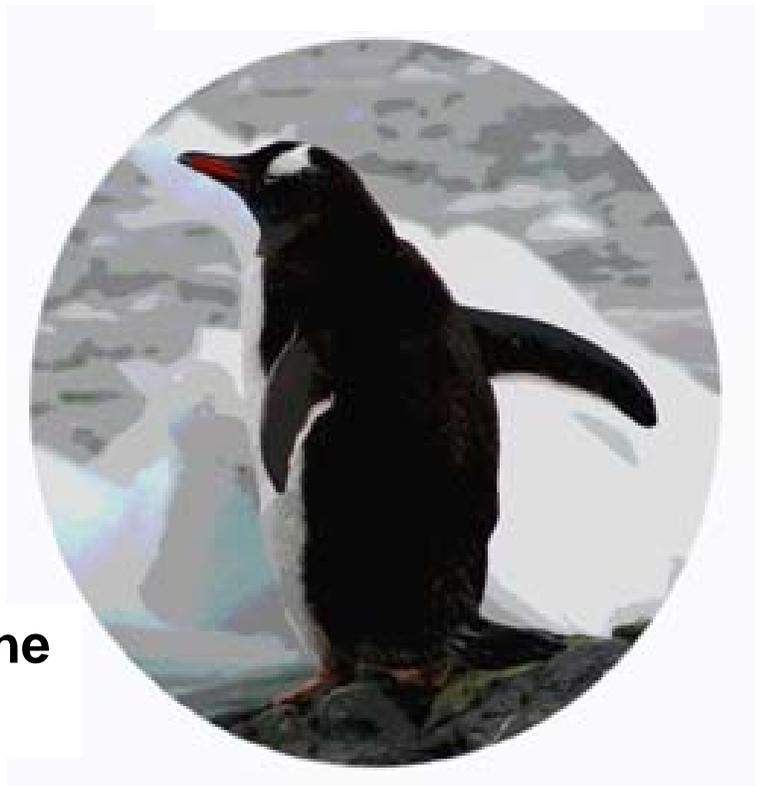


**But Penny has lots of fat and feathers.
She will be warm.
She will be hungry.**

The krill is in the water.



Penny will go into the water to get food.





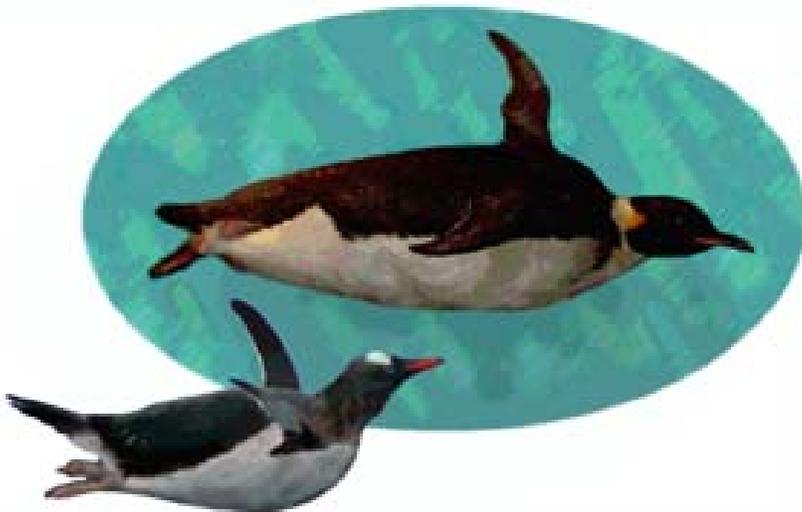
**Penny will fly through the water.
She will dive to get food.
She will come up to get air.
She will meet many other animals in the water.**



This is Penny's cousin Chinnie. Chinnie jumps out of the water to go faster and to find his way.



Penny will learn to jump just like Chinnie.



Penny will meet Cesar and his kind. Cesar is big. He swims fast. Penny will not keep up with Cesar.

Penny will meet many seals.



**Seals like to play catch.
Some seals eat penguins. Penny does not
want to meet them.**



This seal eats krill. It is resting on floating ice. Hi there.



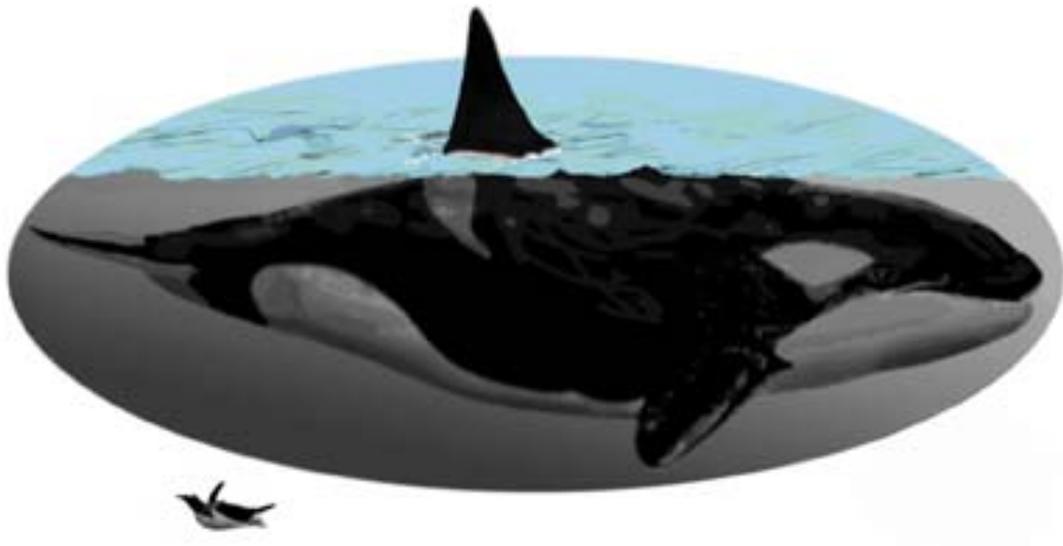
Penny will see whales. Whales are huge animals, bigger than an elephant. These whales eat krill. Hi there.



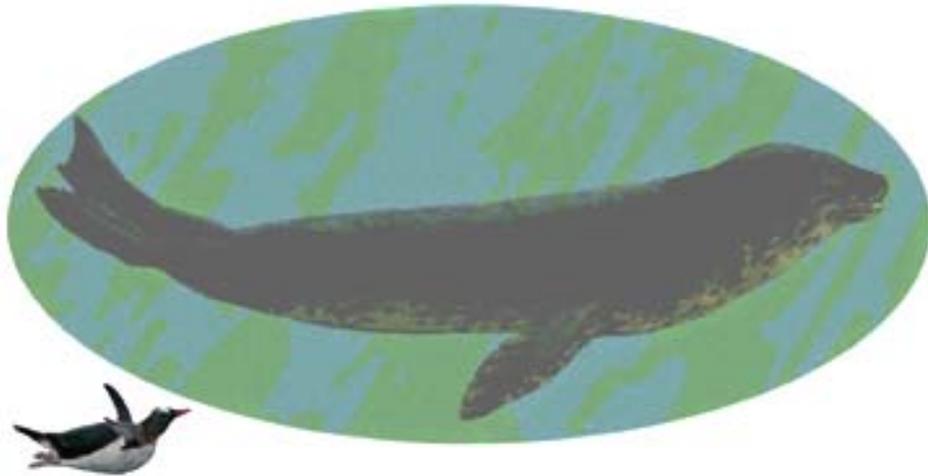
**This big whale cannot see Penny.
Can you see Penny swim under the whale?**



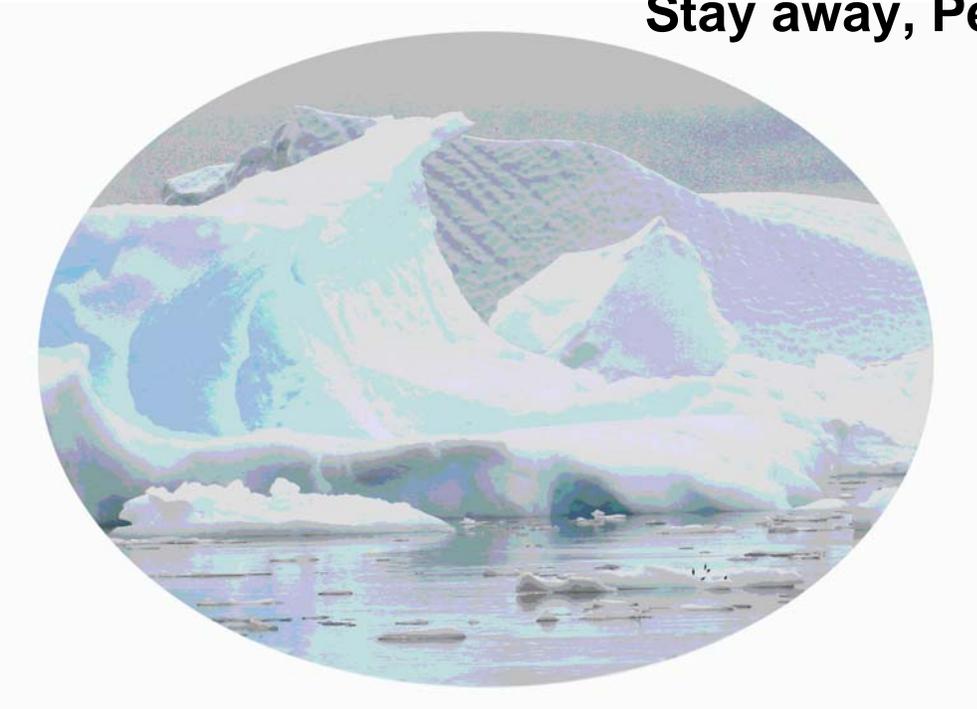
**Some whales eat seals. Also, they eat penguins.
Penny does not want to meet them.**



**How does Penny know which whales are dangerous?
They make shrill noises and they have big teeth.
Careful, Penny!**



The most dangerous animal in the water is the leopard seal. Stay away, Penny!



When there is danger, Penny can jump out of the water. She will be safe on the ice. Can you see the penguins on the ice?

Penny will find a mate. Her mate will help find or make a nest. Penny will lay two eggs. She will have chicks of her own. She and her mate will protect the chicks from the big birds in the air and from the Little White Bird.

**The chicks will be very hungry.
Please, more food!
Penny will be busy.**



Notes for parents and teachers:

The focus of the story is on the life of Gentoo Penguins as seen on the shores of Bransfield Strait, along the Peninsula of Antarctica. Two closely related penguin species are shown also: Adelie Penguins (“Ada,” “Dellie,” “Dallie,” “Bert”) and Chinstrap Penguins (“Chinnie,” jumping while traveling). I did not see the Emperor Penguin (“Cesar”); it does occur all around Antarctica but breeds on the ice, away from the water. It is the largest of the penguins (35kg vs. 5 kg for Gentoo).

The scientific name for the Gentoo is *Pygoscelis papua*. The others are *P. adeliae*, *P. antarctica*, and *Aptenodytes forsteri*. All four species are widely distributed in the seas and islands around Antarctica. Other penguin species (there are 18 in all) live farther north. All are restricted to the southern hemisphere, to regions of high productivity. Some species only raise one chick per season (e.g., the Emperor), others raise two if food is plentiful, otherwise only one (even though there are two eggs to begin with).

Species other than penguins:

Krill: *Euphausia superba*. They are euphausiid shrimp, about 2 inches long. They feed on diatoms (“grass of the sea”) which are abundant around Antarctica in southern summer. Krill is the staple food of Gentoo, Adelie and Chinstrap penguins, as seen in the spilled food on colony grounds.

Fish, squid: generalized. No particular species.

Big Brown Bird: Antarctic Skua, *Catharacta antarctica*. Predator.

Big Bird, “Petrella”: Giant Petrel, *Macronectes giganteus*. Scavenger.

Little White Bird, Snowy Sheathbill, *Chionis alba*. Scavenger.

Cormorant, “Shaggie”: Antarctic Shag, *Phalacrocorax bransfieldensis*.

Tern, “Vitta”: Antarctic Tern, *Sterna vittata*.

Seals: sub-adult or female Fur Seals, *Arctocephalus gazella*; adult Crabeater Seal *Lobodon carcinophaga* (note tooth marks on belly); Leopard Seal, *Hydrurga leptonyx* (not seen). Baleen whales: a pair of humpback whales, *Megaptera novaeangliae*. Toothed whales: a group of orcas (one male, two females), *Orcinus orca*. An orca weighs as much as a large elephant (5 tons plus or minus 2 tons), and is much larger than any predator on land. From the point of view of a penguin, the presence of orcas is a mixed blessing: they keep the penguin-eating leopard seals away, but they also eat penguins if they can catch them (big ones preferred).



Bransfield Strait is at the northernmost tip of Antarctica. It is reached by ship from Ushuaia, which is located in Beagle Channel in the southern tip of Argentina.

Technical notes

Images are based on digital photos taken in January 2006, on a cruise to Bransfield Strait, Antarctica, using high-resolution Canon and Nikon cameras with 10x optical magnification. Two photos of “Meetoo” are by Karen Berger. Krill: SIO collections. Squid: based on a drawing by J.L. Sumich, modified. Fish larva: CalCOFI (SIO), simplified. Emperor Penguin, submerged whales: after Museum exhibits in Hamburg and in Bergen, redrawn. Leopard Seal: based on a drawing by D. Scott, greatly modified.

Cruise participation (on M/V Corinthian II) was arranged by Dr. Nigella Hillgarth of the Birch Aquarium at Scripps. Cruise Leader: John Frick; Naturalist: Lyn Mair. Images were processed using Adobe Photoshop.

Factual information on Antarctic fauna is based on:

T. Soper and D. Scott, 2004, Antarctica – a guide to the wildlife. Bradt Travel Guides, UK.

For a general introduction to marine biology, see:

J.L. Sumich and J.F. Morrissey, 2004. Introduction to the biology of marine life. 8th ed. Jones and Bartlett.

Penguin expert Torrence Stockard (S.I.O.) checked identifications and several colleagues and friends gave valuable advice. Thanks to all!

Discussion Questions

How do parents recognize their own chick? (By voice, mainly. Chicks of neighbors sometimes beg for food and are told to go away.)

How do they find back to the right place where their chicks are? (They look for landmarks when jumping while traveling, upon approaching the shore.)

Why do some penguins spread their wings while standing around? (Probably to cool off. It gets warm under that black suit when the sun shines.)

Why do penguins have webbed feet with strong claws? (For steering and pushing to jump, in the water, and for climbing the rocks and snow.)

Will Aunt Tardie’s Eeny make it? (Unlikely. It must grow much bigger before fall comes with sea ice, and there is not much time left.)

Does Petrella eat penguin chicks? (Petrella eats dead animals on the beach and looks for food in the water.)

Can you tell the difference between Gentoo and Adelie chicks? (Yes. Markings.)

What is the best way to escape from a leopard seal? (Jumping out on the ice.)

About this book, the author and his advisor:

The book started out as a family weekend project, putting together a story on Gentoo Penguin childhood using pictures taken during a week's visit to the breeding grounds of penguins around Bransfield Strait, Antarctica. During that visit, the weather was unusually favorable – no storms, no fog, no indication whatever that these parts of the world offer some of the nastiest weather imaginable. Thus, conditions for taking photos were ideal.



The story emerged readily enough, based on observation, but there were requests for various additions and explanations, especially with regard to the leopard seal and other potentially threatening large animals. The appropriate illustrations were created using Adobe Photoshop.



W. H. Berger has degrees in geology and oceanography from Colorado University and the University of California. He works at Scripps Institution of Oceanography, University of California, San Diego. He wrote a textbook for teachers, entitled "Ocean" and published by University of California Press. He is engaged in public education through an outreach website at SIO, and as a speaker for Rotary Clubs in the San Diego area. This is his first children's book.

Brianna was in kindergarten (2006). She likes animals and stories about animals, and she likes the beach and the ocean. She pointed out what is of interest to children, commented on the choice of names for the various characters in the story, and edited the English text for clarity. She likes the story about Penny the penguin chick and hopes Penny will never meet a leopard seal.

Good luck, Penny!

