



# THE NATURALIST

## Prepare for Adventure

There is nothing like exploring the world, hands-on. And doing it with good friends and colleagues only makes the experience better. On an Earth Explore Adventure you go to the most spectacular places on Planet Earth to explore the diversity of environments and cultures that makes our world so special. Our partners are true experts, and the activities and learning adventures they provide are *available only to Earth Explore participants*. That means on our teacher adventures you can cruise with whales, walk on a glacier, and go on a wildlife viewing safari in Alaska, hike into a volcano and meet elders in Hawaii, and take part in dozens of other adventurous activities. At the core, all of our programs are designed with learning as the goal. You return with new energy, curriculum ideas, effective teaching techniques, and greater knowledge. Designed to our specifications, for our participants only, each activity is sure to excite and inspire our participants. And that's really what Earth Explore is all about. To learn more, go online to [earthexplore.com](http://earthexplore.com).

### SET YOUR WATCH-

Alaska is so big that it has its own time zone. Alaskan Standard Time is 1 hour behind the West Coast, 2 hours behind the Mountain States, 3 hours behind Central Time, and 4 hours behind the Eastern Time Zone.

### Glaciers become icebergs in spectacular Aialik Bay

When Alaska's tidewater glaciers reach the sea, they release huge chunks of ice that thunder into the ocean, becoming icebergs. Our groups will experience this spectacle first hand when they visit the ocean face of Aialik Glacier.

From Seward, we will cruise out of Resurrection Bay and up the fjord of Aialik Bay. Along the way be on the watch for breaching humpback whales, porpoise pods and Minke whales. Once at the face of Aialik Glacier, the show begins. House-sized chunks of ice are continually released from the face of the glacier, which is hundreds of feet high. The process is known as "calving" and produces icebergs that float out to sea. Aialik Glacier is just a small part of the massive Harding Icefield, which stretches 70 miles long, and 30 miles wide. It's all part of Kenai Fjords National Park, which protects not only the icefield, but the many fjords, or drowned valleys, into which the glaciers flow. *For most groups, our daylong cruise will include a stop for lunch at Fox Island and lots of time for sealife viewing from onboard the ship. Coming as it does following an orientation at the Alaska SeaLife Center, our students will have a fascinating introduction not only to some of Alaska's most spectacular coastal scenery, but it's most dramatic spectacle...glaciers becoming icebergs!*



## SeaLife Center reveals Alaska's rich ocean environments

Once a research facility, the Alaska SeaLife Center on Seward's waterfront is an amazing facility where our participants learn

all about the ocean life of Alaska's southern coast. The waters here are the summer feeding grounds of humpback whales, sea otters and other



species, and the cold waters are teeming with krill and other food sources. In hands-on activities, group members view animals in underwater settings, and learn all about the critical role Alaskan seas play in the lifecycle of marine mammals like whales and sea lions.

## Grab some credit!

How about earning some academic credit on your Earth Explore program? This very popular option is a great way to get even more out of your experience. Earth Explore works with Eastern Washington University's Educational Outreach Department to make credit available at the graduate level for our participants. Check out the article inside this newsletter for more detailed information.

## Step onboard the Alaska Railroad

On our Alaska Adventure, group members will board the Alaska Railroad for an unforgettable journey over mountains and through forests from Denali National Park to Anchorage. Featuring viewing cars that allow students to take in all of the sights, the trip will offer views of Mt. McKinley, the highest point in North America, and will cross pristine rivers and forest areas while visiting Talkeetna, the Nenana River scenic area, and other remote regions. The afternoon transfer back to Anchorage will allow groups the maximum time to explore the wonders of Denali National Park, with its world-renowned wildlife viewing, wildflower displays, and fragile tundra environment. A once in a lifetime experience.



# An Alaskan Wildlife Safari--Searching for Alaska's "Big Five"

When our students visit Denali National Park in Alaska's unspoiled interior, they will witness a world renowned collection of wildlife in their native habitat.

The park provides sanctuary to a vast array of species, including the "big five" that almost every visitor wants to see: Alaskan grizzly bears, Dall sheep, moose, caribou, and wolves. During our time in Denali we will embark on a wildlife viewing safari, following the park road from the visitor center at Riley Creek past Sanctuary and Teklanika Rivers to Polychrome Pass and its amazing wildflower displays. At many stops along the way, we will watch for views of Mt. McKinley to the southwest, as well as moose, grizzly and caribou.

At Stoney Hill Overlook we should get a fine view of Mt. McKinley. To protect the park's pristine ecosystems, only one road enters the heart of the park, and access is by shuttle or tour coach only.

## Native Alaskans share their many Cultures

One of the first stops we make in Alaska is the Alaska Native Heritage Center in Anchorage. Here we receive a fascinating introduction to the lifestyles and cultures of the people who have called Alaska home for thousands of years. At the center we will visit five Native "villages" which portray the amazingly diverse native cultures that existed here before the arrival of European culture. We not only learn about these cultures, but "experience" them through hands-on workshops and the help of Native Alaskans themselves, who interpret their own cultures for visitors. All of the tribal villages surround a central lake, where native games are demonstrated, and hands-on craftmaking takes place. All in all, a truly rewarding opportunity to learn about a unique culture unlike anything else in the world.



## Alaska--Summertime home for Humpback Whales



If you chose to make a 6 thousand mile migration each year, there must be something pretty good at the end of your travels. For Alaska's summertime population of Humpback whales, that something is krill, and lots of it.

Thousands of Humpbacks make the trip from winter calving waters along Mexico's coast to Alaska's southern bays. When they arrive, they are ready to feast. The cold waters are some of the richest on the planet, teeming with billions of small fish and krill which flourish in the plankton filled waters.

During the short months of Alaska's summer the huge marine mammals will gorge on the delicacy, feasting on hundreds of pounds each day. Often groups of whales work together, using bubbles to herd fish and krill together, where they take turns grabbing mouthfuls and straining the delicacy through their "baleen" filters. The weight that the whales gain is crucial, as stored fat helps the whales make the long journey back south in the fall, during which they rarely pause to feed.

## Teacher reflections

As educators, each Earth Explore participant brings something special to the program, and hopefully takes something special away as well. Teachers Alina Henninger of Dumfries, Virginia and Marie Gehrig of Beach Park, Illinois, sent these impressions:

*"This program encompasses all things that I would wish or hope for. Each of us came to Earth Explore a bit timid and anxious, but soon found ourselves a part of a family away from home. We depended upon one another, shared knowledge and experiences with each other, and grew together during our adventures."* Alina Henninger

*"I wanted to personally thank Earth Explore. I can't describe what a wonderful experience I had. The teachers were wonderful. It was an experience I will never forget. This trip was the perfect example of what hands-on learning can do. The knowledge I saw our participants acquire was amazing."* Marie Gehrig

## Walk on a moving Glacier? We do it.

*Question: How many people do you know who have walked on an active glacier? Not far from Anchorage that's exactly what we'll do. At Portage Glacier, we set off on a one mile hike to the foot of Byron Glacier. We cross streams filled with glacier meltwater, and take a look at huge ice caves at the end of the glacier. Then it's time to step on the ice. Actually Byron and Portage glaciers offer much more than a chance to walk on glacial ice. They are currently receding, and scientists say it's all part of the planetary warmup associated with global warming. Here we get to see that process firsthand.*

## Websites to Visit

### Alaska's Ocean Environments

<http://www.alaskasealife.org/>

Wonderful source for those interested in creatures like whales, marine mammals (seal, walrus, sea lion, sea otter) and other sea creatures of the far north.

### Denali National Park

<http://www.nps.gov/dena>

Vast Denali National Park is showcased. Tundra, huge animals like the grizzly and moose, and fragile ecosystems.



### Alaskan Cultures

<http://www.alaskanative.net/>

Learn about native Alaskan cultures at this website of the Alaska Native Heritage Center, which Earth Explore students visit.

### All about Glaciers

<http://nsidc.org/glaciers/story/>

If you want the inside scoop on glaciers, this is the place. Learn about what makes a glacier form, why some are melting, and how Alaska's tidewater glaciers spawn icebergs. Good background for your trip to Alaska!

### The Aurora Borealis

<http://www.exploratorium.edu/auroras/>

Alaska is famous for the Northern Lights, or Aurora Borealis. Learn all about what causes auroras, how scientists predict them, and where to see them. Links to lots of great pictures too.

### The Aurora Borealis

Alaskan summer days are long. But when darkness finally falls, we may have a chance to witness one of nature's finest displays. The Aurora Borealis happens when charged particles from the sun's "solar wind" compress the earth's magnetic field, forcing energized electrons to travel downward to smash into gas particles high in our atmosphere (the ionosphere). The energy is given off in the glowing displays that light the northern sky. Scientists in Alaska regularly monitor sunspot activity to forecast when the strongest and most visible auroras will occur across the state.



### Alaskan Totems - A Window on Culture

Perhaps the most recognized symbol of Alaska, native totem poles are an artform unique to the region. Although most outsiders believe that totem poles have mainly religious or spiritual significance, they were instead meant to honor people, commemorate special events, and tell tribal stories. Usually carved from western red cedar, the designs involve specialized clan symbols like the Bear, Beaver, Raven, Wolf and Killer Whale. In the middle of the 1800s there was a huge increase in carving due to the arrival of iron tools from Europe and designs became quite elaborate. The arrival of missionaries discouraged pole carving and the feasts that accompanied them. Today totem poles are carved by native craftsmen who pass these skills along to the younger generation.



### Seward--Historic Gateway to Kenai Fjords and the Sea

In a spectacular setting framed by mountains and the sea, the historic city of Seward has long been the gateway to Kenai Fjords National Park. Seward commands the head of Resurrection Bay, a stop on the Alaska Marine Highway and the primary port for visitors to the National Park. Part of what makes Seward so special is its location. Cruise boats depart from the port to explore the fjords and inlets of the vast Kenai peninsula, from which tidewater glaciers pour into the sea from the Harding Icefield. Since the peninsula is so vast, and no roads penetrate it, the best way for most visitors to witness the spectacular sight of the glaciers is at sea. Seward is also rich in Alaskan history. Although native Alaskans had long lived in the area, the first outsiders to reach Seward were Russians, who set up a shipbuilding base here in 1793. More than a century later, the official founding of the city in 1903 was spurred by its deepwater port and ideal railway location. Perhaps the most dramatic recent event was a mammoth earthquake that struck in 1964 and destroyed most of the town. The 9.2 quake was one of the largest ever recorded in North American, and sent tidal waves as far as California and Hawaii.

The town was rapidly rebuilt, but a clock at the Seward Historical Society commemorates the event; its hands are permanently frozen at the moment the earthquake struck, 5:36AM, March 27, 1964.

