



Cloud Ridge Naturalists

FIELD DISCOVERY SEMINARS

2010

A WORD ABOUT CLOUD RIDGE

Cloud Ridge Naturalists is one of the oldest and most respected nonprofit field schools in the West. Over the past thirty years, several thousand people have experienced the special blend of environmental education and exploration that Cloud Ridge offers. Our commitment to providing the finest in natural history education and environmentally responsible travel remains our mission and the cornerstone of our program. The educational vision behind what we do relies on a multidisciplinary perspective well grounded in state-of-the-art science. Just a glance through the biographies of our leaders should convey the excellence of our faculty—their expertise, talent, and passion for teaching are unsurpassed!

We spend our days in some of the world's most beautiful wilderness areas—recognizing their importance to conservation but also their increasing fragility as global environmental change reshapes the world as we've known it. Wherever we travel, and by whatever means—expedition ship, boat, raft, sea kayak, or on foot—we work only with outfitters whose environmental ethics and operating principles parallel our own. Our field seminar groups are kept small and congenial, creating the best possible atmosphere for learning and discussion. We select fine lodging or picturesque campsites that have a strong sense of place, and make every effort to live up to our legendary reputation for excellent food. We always take your comfort, safety, and enjoyment seriously—even in the most remote field settings. Because we recognize the powerful role that conservation photographers, writers, and other artists play in environmental education and advocacy, you'll find seminar offerings that address these skills as well.

Not surprisingly, more than 80% of our participants each year have traveled with us before. That matters to us! Whatever your interests, our trips open a magical window on the natural world. We strive to be the best—come join us!

FROM THE DIRECTOR'S DESK

Cloud Ridge Naturalists embarks on its fourth decade at a time when global-scale environmental degradation threatens every corner of our planet. The places we travel to—the Arctic, the marine and island ecosystems of the North Pacific and North Atlantic, the Sub-Antarctic islands and the Antarctic Continent, the temperate rainforests of the Pacific Northwest and their counterparts in Andean Patagonia, and western North America's wilderness rivers—are at risk. Many of us believe that human civilization and the earth's ecological systems are on a collision course—one that requires global-scale solutions as well as a renewed personal commitment by each of us if we are to forge a different outcome to this grim scenario.

Last year's remarkable journeys—from the Russian Arctic to the Antarctic outpost of South Georgia—felt more like a requiem for what we've lost than a simple celebration of "place." Amidst



the wilderness beauty, Cloud Ridge participants witnessed the building momentum and impacts of human-wrought changes—global warming, deforestation, pollution, habitat fragmentation, the threat posed by invasive species, overfishing, and losses in both terrestrial and aquatic biodiversity. These impacts transcend international and ecological boundaries—and the implications for all of us are truly profound.

Last year's field season marked a sea-change in how I view Cloud Ridge's role in making a difference. We need to move beyond the "last great place" model that drives most ecotourism, and become better-informed stewards—not just "snapshot" sojourners. Our leadership position in environmental education allows us to support international conservation efforts by focusing on three distinct but complementary educational strategies: (1) our traditional seminar program designed for the general public; (2) the sponsorship of an annual field-based exchange program for scientists focusing on a specific ecosystem or conservation issue of critical concern; and (3) support for publishing efforts (both print and visual media) emphasizing natural history and conservation biology. I invite you to visit our website for "Field Notes" and slideshows highlighting our discoveries and conservation projects.

A globally-embraced environmental ethic is urgently needed—one based on a true understanding of the complex interrelationships that govern the natural world and the vulnerability of all species, ourselves included, should we fail to act with intelligence, foresight, and dispatch. This year's offering, "In Darwin's Footsteps," is intended to honor the biodiversity that inspired one of the greatest scientific discoveries of all time. Clearly, our survival depends on informed, passionate citizen advocates for wilderness and the importance of biological diversity. We must spread the word, as effectively and as articulately as we can. Will it be enough? When I brood about the world my grandchildren are inheriting, I find a renewed sense of purpose and clarity in Jorge Luis Borges' answer to an interviewer's question:

Interviewer: "Do you think that we have a right to be hopeful?"

Jorge Luis Borges: "No. We have the obligation to be hopeful."

WILD OCEAN MISTS: GLACIER BAY, LITUYA BAY & CHICHAGOF ISLAND

May 8-20, 2010 (13 Days/12 Nights)
Audrey Benedict, Kimber Owen, and
the Crew of the *M/V Sea Wolf*

Imagine Glacier Bay as John Muir saw it in 1899, as a member of the legendary Harriman Expedition—without the cruise ships, the guidebooks, and interpretive signs that define the modern visitor's experience. Aboard the *M/V Sea Wolf*, a 97-foot vintage wooden boat, we'll have the chance to see this spectacular glacier and fjord landscape in much the same way that Harriman's scientists did. We'll trace the evidence of climatic change left behind by the advance and retreat of these immense glaciers—just as Muir did—and ponder the impacts and changes that loom on the horizon. Unlike the big cruise ships, *Sea Wolf* is trim enough to explore the narrowest of fjords and shallow coastal waters. She carries twelve passengers and a crew of five in superb comfort—the perfect size for a voyage such as ours. Best of all, *Sea Wolf* carries a full complement of sea kayaks and a motorized inflatable to enable exploration both far and wide. For those who take paddle in hand, the use of sea kayaks allows a more intimate, seal's eye view of the tidewater glaciers, inlets, islets, and estuary streams that make this coastal wilderness one of North America's most beautiful and biologically diverse areas.



Along the wild, storm-battered coastline of the Gulf of Alaska, a whale-shaped fjord—Lituya Bay—lies within the snowy embrace of the spectacular Fairweather Range. The only access to this legendary outlier of Glacier Bay National Park is by small boat or float plane. Lituya Bay is situated at the confluence of three glaciers—the Lituya, the Cascade, and the North Crillon—and centered along a T-shaped epicenter of intense geologic activity known as the Fairweather Fault. Since 1899, nine earthquakes have rumbled across the region, toppling mountains and flaying this ice-carved landscape to its bedrock roots. In 1958, a magnitude 8.3 earthquake centered on Cross Sound, forty-five miles to the southeast, set the fjord into earth-wrenching motion and triggered a 1,740-foot-tsunami-like wave. The opportunity to explore the extraordinary geology and human history of Lituya Bay is a highlight of our voyage.

May is a magical time to be in Glacier Bay, largely because the weather is often at its best and we have these spectacular fjords mostly to ourselves—just the bears, the first returning whales, and the thousands of migrating shore- and seabirds traveling the Pacific Flyway. Against a backdrop of some of the most magnificent mountains on earth, rivers of glacial ice tumble into the sea and aquamarine-colored icebergs drift by on the tides. Responding to the boom and crash of ice at the glacier front, kittiwakes and Arctic terns swirl over the churning, welling waters in search of food. Western sandpipers and other shorebirds skitter along the shorelines, poking their bills into the food-rich mud and gravels of the intertidal zone. Sea ducks and huge rafts of harlequin ducks forage in quiet bays before making the final push to their breeding areas. Grizzlies and black bears, recently emerged from hibernation dens, can be seen bending down the branches of black cottonwoods to feed on the sweetly-resinous leaf buds, grazing on swards of lush sedges, or scraping succulent barnacles and mussels from rocks along the water's edge. For the wildlife of Glacier Bay and the outer islands, this is truly a time of plenty.

Price: \$4,950 (includes a \$500 deposit)

Group Size: 12 Trip Rating: 2-3

Price Includes: 10 nights/10 days aboard the *M/V Sea Wolf*, all meals and beverages aboard, 2 nights lodging in Juneau (May 8 & 19), two group dinners ashore, the services of a four-person crew and three naturalist leaders, roundtrip Air Excursions charter flight to Gustavus from

Juneau and return, boat/hotel transfers, full sea kayak outfitting and instruction, and gratuities to the *Sea Wolf's* crew. **Does not include** roundtrip airfare to Juneau, Alaska from your point of departure or meals other than those listed.

Need more information? Visit *Sea Wolf Adventures* online at www.seawolfadventures.net for pictures of the *M/V Sea Wolf*, her cabins, interior amenities, accessibility & crew biographies.



OF TIGER WALLS AND CANYON WRENS: A NATURALIST'S JOURNEY ON THE YAMPA AND GREEN RIVERS

May 30-June 5, 2010

**Audrey Benedict, Dr. Emmett Evanoff,
Dr. Geoff Hammerson, Dr. Mike Scott,
and Dr. Ed Wick**

The Yampa is one of North America's premier wilderness rivers—a world where life is written in water and history in rock. Gathering strength from its two main tributaries, the Elk and Little Snake, the Yampa River has carved a spectacular canyon through the eastern arm of Dinosaur National Monument. Our oar-powered raft journey begins at Deer Lodge Park, at the Monument's eastern edge. In the capable hands of our guides from Holiday River Expeditions and benefiting from the expertise of our remarkable team of leaders, we'll spend five days exploring canyon worlds powered by the energy of the desert sun and shaped by the flow of a river that still dances to its ancient rhythms. The stage is set by the extraordinary geology of this water-sculpted landscape—the stories behind the scenery both dramatic and compelling.

The Yampa River is truly the lifeblood of this high desert country. As we float through a succession of buff and vermilion canyons refreshed by the verdure of cottonwoods and boxelders, the flutelike songs of canyon wrens echo from the canyon walls. Not surprisingly, the Yampa also remains the last stronghold of the Colorado River

System's endangered native fish species—their unique life histories rivaling those of the legendary salmon. The names of the places we pass on this 71-mile float trip—Mather's Hole, Tiger Wall, Warm Springs Rapid, Steamboat Rock, Mitten Park Fault, Whirlpool and Split Mountain canyons—are all part of the rich fabric of river lore. Join us as we embark on our 21st journey of discovery on the Yampa River—an unparalleled wilderness and learning experience!

Price: \$1,450 (includes a \$500 deposit)

Group Size: 20 Trip Rating: 2

Price Includes: 5-day raft trip (oar-powered) by Holiday River Expeditions, all river transfers, crew gratuities, 5 naturalist guides, all meals and beverages (beer, wine, and nonalcoholic) during the river trip, a final group dinner, and 2 nights' lodging at the Best Western Dinosaur Inn in Vernal, Utah. **Does not include** camping gear (which can be rented from Holiday) or roundtrip transportation to Vernal from your point of departure. The adventure begins on May 30th at 8 PM in Vernal, Utah and concludes with departure for home on the morning of June 5th.

CONSERVATION IN FOCUS: A PHOTOGRAPHIC WORKSHOP IN SOUTHEAST ALASKA

June 18-27, 2010 10 Days/ 9 Nights

**Bob Rozinski & Wendy Shattil,
Audrey Benedict and the *M/V Catalyst* Crew**

Few places in North America rival the scenic beauty and wildlife diversity of Southeast Alaska's Inside Passage. These magical land and seascapes—the spectacular fjords, tidewater glaciers, and old-growth forests of Frederick Sound, Thomas Bay, Endicott Arm, and Ford's Terror—provide the perfect setting for our inaugural “**Conservation in Focus**” workshop. International League of Conservation Photographers, Bob Rozinski and Wendy Shattil, lead this 7-day voyage aboard the *M/V Catalyst*, a 76-foot classic wooden boat built in 1932 as the floating laboratory for the University of Washington. The ultimate “classroom,” *Catalyst* carries 12 passengers in superb comfort and is equipped with a full complement of sea kayaks and a motorized inflatable to enable explorations both near and far. The use of sea kayaks allows us a more intimate, seal's-eye view of the marine world—the perfect platform for aspiring conservation photographers.

Internationally recognized for their evocative images and for their many photographic contributions to conservation causes, Bob and Wendy have dedicated their careers to portraying not only the inherent beauty of the natural world but also the environmental dramas that threaten the fragile fabric of life. In contrast to the traditional “how-to” workshop, this unique seminar is designed to help participants move to the next level, mastering the creative and technical skills required to make visual media a more powerful conservation tool in projects close to home or in the remotest corners of our changing world—wherever participants wish to be actively engaged in conservation work. In addition to learning about the natural history of Southeast Alaska, we'll explore and discuss the impacts that global warming is having on the region's glaciers, the threats facing marine and land-based wildlife, and the effects of marine pollution on animal and human life-ways. Most importantly, we'll learn how to shoot images that truly tell a story and have the strongest possible impact on the viewer. Workshop activities will emphasize image context, perspective, originality, composition, the use of light, and technical quality—honoring photographic integrity and the environment throughout the creative process.

Working singly and collectively, we'll produce a custom photo book that truly captures the trip's observations and discoveries—the “essence” of Southeast Alaska as well as the environmental challenges that it faces. In addition to an overview of image presentation techniques, the production of a photo book provides each participant with a workable template suitable for other conservation projects. The only “prerequisite” for this workshop is a strong desire to use photography as a tool for achieving your own conservation goals. Don't miss this rare opportunity to refine your skills and make a difference with your images!



Price: \$4,100 (includes a \$500 deposit)

Group Size: 12 Trip Rating: 2-3

Price Includes: 6 nights/7 days aboard the *M/V Catalyst*, all meals and beverages (including wine and beer), 3 night's lodging (**June 18 & 19** in Petersburg and **June 26** in Juneau), a one-hour glacier photo/flight-seeing trip with Kupreanof Flying Service (Butch Williams), two group dinners ashore, the services of our three photographer/naturalist leaders and the *Catalyst's* a four-person crew, full sea kayak outfitting and expert instruction, gratuities to the *Catalyst's* crew, boat/hotel transfers, and a copy of the photo book. The price quoted is *per person* based on double occupancy; a single supplement of \$450 is required of participants preferring non-shared hotel accommodations. **Does not include** your roundtrip airfare from your point of departure to Petersburg, Alaska or your return from Juneau.

Need more information? Visit the **Pacific Catalyst** website at www.pacificcatalyst.com for boat pictures, cabin details, interior spaces and amenities, and biographies of the crew.



**SPIRITS OF THE WATER:
A VOYAGE TO BRITISH COLUMBIA'S
GREAT BEAR RAINFOREST**

September 7-18, 2010 12 Days/11 Nights
Audrey Benedict, Marven Robinson,
Kimber Owen & the *M/V Sea Wolf* Crew

A voyage to the wild archipelagos of coastal British Columbia allows us an unparalleled window into an ancient, more magical world—one in which all life is inextricably linked to the sea. Joining the *M/V Sea Wolf* at Ketchikan,

Alaska, we leave the standard cruise routes behind as we embark on a voyage along a coast so convoluted with glacier-carved fjords, channels, inlets, and islands, that a distance measurement of the actual coastline is virtually impossible. Life here is governed by the sea's rhythms and we turn our attention to navigating a watery maze of channels, passes, and reaches. Strange, reversing tidal rapids—like sea-bound rivers—impress us with their power and purpose. The rock-bound intertidal zone is home to an amazing diversity of marine animals: crabs, starfish, anemones, sea urchins, and sea cucumbers, to name just a few. The seabirds and shorebirds we see, among the thousands beginning their long migrations to southern waters, live at the mercy of wind and wave—as the sea goes, storm-ridden or serene, so must they. Their survival, as we will learn, is undeniably tied to the ecological health of the sea as well as to that of the terrestrial ecosystems ashore—making them especially vulnerable to the impacts of global warming, marine pollution, diminished food resources, commercial fishing, seabird by-catch, fish farming, logging, mining, and changes in the rich plankton soup that forms the basis for the entire marine food chain.

Along the central coast, we enter a mist-shrouded wilderness set amidst a backdrop of sheer cliffs and steep-walled fjords, plunging waterfalls, old-growth rainforests, and glacier-carved mountains. We'll enjoy myriad opportunities to explore—a magical world that can be reached only by boat or sea kayak. The rainforests are home to some of the world's most majestic trees—Douglas fir, Sitka spruce, red cedar, and western hemlock—with some towering over 300 feet in height, trunks measuring 19 feet in diameter, and some at least 1,000 years old. The shaded streams and rivers that wind through these forests offer the perfect clear, cold spawning grounds for six species of salmon that return here each year: coho, chinook, sockeye, pink, chum, and steelhead. Where the salmon-spawning rivers empty into the inlets and estuaries, the jade-green waters carry the haunting scent of ghost salmon returning to the sea. These salmon runs—the literal and metaphorical heart of this ancient forest ecosystem—provide an almost continuous supply of food during late summer and fall, particularly for bears preparing for hibernation, but also for coastal gray wolves, bald eagles, gulls, dippers, pine marten, river otters, mink, and many others. Research by Ian McAllister, Chris Darimont,

Paul Paquet, Tom Reimchen, and others have shown that salmon actually sustain the entire Great Bear Rainforest ecosystem. The bears—one of the highest concentrations of grizzly bears found in North America, black bears, and the legendary “Spirit Bear,” a rare, white-blond sub-species of the black bear—are crucial to the transfer of marine-derived nutrients (from decomposing salmon) into both freshwater and terrestrial ecosystems ashore. Trace nutrients from salmon are found in the topmost needles and wood of the forest’s trees. Recent research has also shown that large individual growth rings in the wood of these trees can be correlated with heavy salmon runs.

The Great Bear Rainforest is the traditional homeland of the indigenous Heiltsuk, one of several First Nation cultural groups whose history, identity, and spirituality are inextricably intertwined with that of the sea and the coastal forests. With our Gitga’at guide, Marven Robinson, we’ll spend the day on a viewing platform positioned above a stream heavily used by bears during the salmon spawning period. Opportunities for observing and photographing “fishing” bears, including the spirit bear, are excellent, as are our chances of seeing other species that specialize on salmon “left-overs.” A Gitga’at community-sponsored dinner of traditional foods and dances performed in their communal longhouse will highlight our day spent with the bears. Our spirits nourished by wonderful memories and shared experiences, the conclusion of our voyage, at Bella Bella, comes all too soon!

Price: \$4,950 (includes a \$500 deposit)

Group Size: 12 Trip Rating: 2 (Accessible)

Price Includes: 10 nights and 11 days aboard the *M/V SeaWolf*, all meals, cabins with private facilities, one night’s lodging at the Cape Fox Lodge in Ketchikan, the services of a 5-person crew, 3 naturalist leaders, full sea kayak outfitting and instruction, guide services by Marven Robinson, Gitga’at community dinner and performance, gratuities to the crew, and all hotel/boat transfers.

Does not include roundtrip airfare from your point of departure to Ketchikan, Alaska, the flight segment (pre-arranged) from Bella Bella to Vancouver, B.C., or your homebound flight from Vancouver.



WEAVING ANDEAN STORIES: TRACING ARGENTINA’S CULTURAL HERITAGE AND TEXTILE TRADITIONS

October 15-30, 2010 16 Days/ 15 Nights →→
**Carol Passera, Audrey Benedict, and
Argentine Textile Experts & Artisans**

Andean textiles reflect the fabric of life—a unique heritage of woven stories and cultural traditions inspired by the high, windswept deserts and snow-capped peaks of the Andes. In the ancient Andean world, textiles served as a primary form of artistic expression as well as a powerful visual medium for portraying nature’s secrets and the order of the universe. The Incas believed cosmic harmony required balance in all realms of life—nature-culture, male-female, past-future, front-back, right-left, and top-to-bottom. Textile designs from both pre- and post-Spanish Conquest periods reflect these belief systems, whether destined for ceremonial purposes or for everyday use.

In Argentina, the first hand-spun cordage—a mixture of plant fibers, wool, and human hair—dates to nearly 7670 BC and was found in a cave in Jujuy Province. The domestication of native Andean camelids—guanacos, alpacas, llamas, and vicuñas—as a consistent wool source clearly predated the Inca’s cultural ascendancy. In fact, woven cloth became such a valuable commodity that it functioned as a status symbol and often took the place of monetary currency.

The Spanish conquerors, discovering indigenous populations already skilled in the art of weaving, introduced European merino sheep, increased

native cotton cultivation, and imposed strict textile guidelines and religious strictures on the weavers—all with the goal of establishing a New World woolen industry that would rival any in Europe. In addition to the skills of the weavers, the Spanish also marveled at the vibrant colors produced by the natural dyes in use at the time—especially the red dyes made from cochineal, a tiny scale insect found on cactus, and the amazingly rich blues made from a shrub called indigo. Both of these dyestuffs were soon being exported to satisfy Europe’s burgeoning textile industry. Though Spanish textile designs and influences can still be seen in north and northwestern Argentina, the Spaniards never totally succeeded in unraveling the traditions and cultural expression that had persisted—virtually unchanged—for centuries.



Andean textiles are known worldwide for their exquisite quality, intricate designs, and rich color palette. This unique seminar explores the natural history, human lifeways, wild fiber usage, and textile traditions of two strikingly different regions in Argentina. Our textile odyssey begins in Buenos Aires, with visits to museums, galleries, and lectures by noted textile experts. We fly to the beautiful colonial city of Salta, which serves as a cultural center for the textile arts of Northwest Argentina. From there we’ll travel to the remote, highland communities of Purmamarca and Abrapampa, in the Andean puna, where both Inca and Hispanic influences remain strong and vibrant. We’ll enjoy demonstrations by local weavers and spinners, learn how to dye with native plants, and visit artisan markets to purchase alpaca wool and textile treasures—at the source!

Shifting our focus to Argentine Patagonia, we’ll travel to the heartland of the indigenous Mapuche people, whose resistance to Spanish influences allowed them to perfect their own weaving style—double-faced textiles highlighted by complicated geometric designs. We’ll visit the Taller Artesanal and the Nahuel Pan artisan markets, where Mapuche women still gather to spin, weave, and sell their beautiful work. From the Mapuche village of Gualjaina, we’ll travel along

the Chubut River to the El Saltillo spinning wheel workshop—also learning to spin, with a stick, in the ancient Mapuche manner. We’ll stay at famous Estancia Don Jose, home of the Guenguel Project, where the Maziquiarán family raises a special breed of guanaco and produces luxurious fabrics and garments woven or knitted from yarns that blend the finest quality Merino wool with guanaco. We conclude with a visit to the world-famous Cañon del Rio Pinturas and Cueva de las Manos (“Cave of the Hands”), the cave’s walls covered with hundreds of brightly-colored, positive and negative hand prints, as well as 9,000-year old drawings of humans and guanacos—a true celebration of Andean artistic traditions!

Price: \$4,850. (includes a \$500 deposit)

Group Size: 10 Trip Rating: 2

Price Includes: 16 days/15 nights, including all lodging, all meals, transportation by van or small bus throughout, all lectures and demonstrations by local experts and artisans, entrance fees to museums and exhibits, the services of two naturalist guides, and all airport/hotel transfers.

Does not include roundtrip airfare to and from Buenos Aires (10/15-16 & 10/29-30) from your point of departure, internal flights as required (~\$650), alcoholic beverages, or personal items.

**IN DARWIN’S FOOTSTEPS (PART 1):
PATAGONIA’S WILD ATLANTIC COAST,
LOS GLACIARES NATIONAL PARK,
CAPE HORN & TIERRA DEL FUEGO**

October 31-November 17, 2010 →→

**Dr. Dee Boersma, Carol Passera,
Audrey Benedict, and Guest Lecturers**

Charles Darwin’s theory of evolution—the multi-branched “tree of life”—was such a dazzling leap in the history of science that it tends to obscure the long tradition of scientific exploration that led up to it. The epic voyages of Captain James Cook and Alexander von Humboldt, clearly inspired the H.M.S. *Beagle*’s brilliant commander, Captain Robert Fitzroy, and the ship’s aspiring naturalist, Charles Darwin. When the 22-year-old Darwin



boarded the *Beagle* in 1831, embarking from England on a five-year circumnavigation of the world, no one could have guessed his unique potential to become one of the world's great thinkers, a gifted observer of nature, and an extraordinarily intuitive geologist—or that the expedition would one day be considered the most important scientific voyage of all time. Darwin's geological discoveries in Patagonia played a pivotal role in the development of his theory of evolution—his fossil evidence for earth's greater antiquity challenging many of the leading scientists of his day.

Darwin spent 20 years, following his return to England, working through the journals of the *Beagle* voyage, his notebooks, poring over his specimen collections, corresponding with fellow scientists, and conducting experiments—until a letter from fellow naturalist and evolutionary-theorist, Alfred Russel Wallace, compelled him to publish his seminal work, *On the Origin of Species*. That book, and several other works, placed Darwin squarely at the epicenter of Victorian scientific debate—launching what others would call the “Darwinian Revolution.” In exacting detail, he set forth the biological mechanisms responsible for the amazing diversity of life on earth, for variation within species, and for the geographic distribution of species and varieties—an unapologetic and unequivocal rebuttal of creationism. From a modern environmentalist's perspective, the conceptual framework of Darwinian evolution should have laid to rest any lingering notion of human superiority—or that the earth was “created” solely for our benefit. In fact, were Darwin here today, he would remind us that humans represent but one tiny twig on an enormous and luxuriantly branching tree of life!



In celebration of the 150th anniversary of Darwin's *Origin of Species*, we embark on a unique Cloud Ridge voyage of discovery—to where the Darwinian Revolution began. This land and sea-based journey traces Darwin's incredible explorations along the remote coastline of Argentine Patagonia, his geologic and biological forays into the Andean highlands, and concludes with four days spent cruising the glacier-carved fjords of Tierra del Fuego.

We begin our journey in Buenos Aires, touring the now-cosmopolitan city that Darwin so admired for its architectural beauty. Flying to Comodoro Rivadavia, we drive along the coast to Bahía Bustamante, a small town devoted to the processing of marine algae. We explore a coastline graced by white sand beaches and noisy colonies of sea lions, Magellanic penguins, the endemic Olrog's gulls and flightless steamer ducks, and both rock and red-legged cormorants. There should also be opportunities to see the small Commerson's dolphins, as well as orcas and southern right-whales. This coastline is a critical stop-over for migratory shorebirds, which stage here by the thousands.

Continuing “in Darwin's footsteps,” we visit the marine outpost of Cabo Blanco, near Puerto Deseado, where you truly feel that “nowhere is a place.” We'll tour Petrified Forest National Park, where Darwin discovered the fossilized remnants of a once-flourishing tropical forest. Darwin's journal devotes several pages to San Julian and the Rio Santa Cruz valley, where he discovered a vast fossilized seashore, remarkable for its giant oyster fossils, extending for more than 500 miles along the coast and then inland to at least 3,000 ft. in the Andean foothills. These fossil discoveries, among others, led Darwin to propose that the entire southern portion of South America must have been massively uplifted during, in his words, “some epoch of extreme violence.”

We conclude our exploration of Patagonia's wild coastline with a visit to Monte León National Park, the first coastal and maritime national park in Argentina. Preservation of this pristine coastal steppe landscape and its wildlife began as a conservation project funded by American eco-philanthropists Doug and Kris Tompkins, co-founders of Conservacion Patagonica. Transferred to the National Parks Administration in 2001, this spectacular park provides an almost complete sampling of Patagonia's biodiversity— exactly as

Darwin saw it! Species lists for Monte León report at least 134 species of birds, including the 5th largest colony of Magellanic penguins ($\pm 70,000$ pairs), Darwin's rhea, elegant-crested tinamou, and Chilean flamingo, as well as 28 mammalian species, including the mara, two species of armadillo, guanaco, puma, gray fox, and the almost mythical Patagonian possum.



Turning our attention to Patagonia's glacier country—the domain of the Andean condor—we'll retrace Darwin's journey up the Rio Santa Cruz, in search of its headwaters in the snowy Andean cordillera. Darwin was forced to turn back before reaching the glaciers or even the huge lakes—Lago Argentino and Lago Viedma—nourished by meltwater from the vast Southern Continental Icefield. In Darwin's honor, we'll visit Perito Moreno Glacier, Los Glaciares National Park's most famous glacier and named for the region's greatest scientist-explorer. Moving deeper into this glacier-carved wilderness, we'll explore beautiful Andean beech forests and travel by small boat through a maze of blue icebergs to a trail that climbs to a dramatic view of the Upsala Glacier.

Flying to Ushuaia, the world's southernmost city, we begin our exploration of Tierra del Fuego with a visit to historic Estancia Harberton and Hammer Island, home to nesting Magellanic and gentoo penguins. Our 4-day voyage aboard the *Mare Australis* promises far greater comforts than Darwin experienced aboard the *Beagle*. We'll pass through Beagle and Murray channels, landing at legendary Cape Horn, on Islas Hornos. At Wulaia Bay, where Darwin landed in 1833, we'll visit a former Yámana aboriginal settlement and hike through a stunning Magellanic forest. The opportunity to experience—by ship and Zodiac—the magnificent glaciers, tumbling waterfalls, and dramatic fjords of Tierra del Fuego is unparalleled. After navigating the legendary Strait of Magellan, our voyage of discovery concludes at Punta Arenas, Chile. "In Darwin's Footsteps" is a true celebration of biodiversity!

Price: \$7,100. (includes a \$1,000 deposit)

Group Size: 14 Trip Rating: 2

Price Includes: 18 days/17 nights, including all hotel/airport transfers, all ground transportation, all lodging, 4-day cruise in Tierra del Fuego (*Mare Australis*), all meals, services of three naturalist leaders, local guides/lecturers, all national park and museum entrance fees, and gratuities as necessary. **Does not include** roundtrip airfare (10/31-11/1 & 11/16-17) to Buenos Aires from your point of departure, internal flights/airport taxes (\approx \$385), or trip insurance. Trip cost is based on double occupancy; single supplement is \$1525.

CLOUD RIDGE STAFF & LEADERS

Audrey Benedict is the founder and Director of Cloud Ridge Naturalists. Trained as a biologist and geologist, Audrey has guided groups in the field and at sea for more than thirty years, drawing on her broad knowledge of mountain and oceanic environments in many parts of the world. She is the author, with photographers Rozinski and Shattil, of *Valley of the Dunes: Great Sand Dunes National Park* (2005), and *The Naturalist's Guide to the Southern Rockies* (2008). Audrey served as a Trustee for The Nature Conservancy (Colorado Chapter) for 10 yrs. and has worked on projects in Colorado, coastal B.C., and Ecuador.



Dr. P. Dee Boersma holds the Wadsworth Endowed Chair in Conservation Science at the University of Washington. She is one of the world's foremost authorities on penguins, and especially on penguins as indicators of ocean ecosystem health. As Founder and Director of UW's Penguin Project, Dee and her colleagues have spent nearly 30 years studying Magellanic penguins at Punta Tombo, Argentina. Dee's research has been widely published, and she has lectured around the world. She was recently honored with the Heinz Award for her research and commitment to conservation education. Dee is unsurpassed as a field teacher!

Dr. Emmett Evanoff is Assistant Professor of Geology at the University of Northern Colorado, and a Research Associate at the Denver Museum of Nature and Science and the University of Colorado Museum. His research has focused on the study of paleoenvironments—the “story behind the scenery.” Emmett brings to his teaching a tremendous knowledge of regional geology and a contagious enthusiasm for the geologic events that have shaped western landscapes.

Dr. Geoff Hammerson is Senior Research Zoologist for NatureServe and lives in Port Townsend, WA. He is the author of the definitive *Amphibians and Reptiles in Colorado*, as well as *Connecticut Wildlife*. Geoff also teaches short-courses in field ecology at Wesleyan University in Connecticut. He is an outstanding field zoologist, always adding new dimensions to his natural history expertise, and is known for his ability to coax the most reluctant animal to share its secrets with an appreciative audience.

Kimber Owen wears many hats—owner of the *M/V Sea Wolf* and Sea Wolf Adventures, Captain, expert naturalist, and conservationist. Her passion for Alaska and its wildlife is unsurpassed and is reflected in her mission to make the *Sea Wolf* a platform for conservation education throughout the Pacific Northwest. Kimber’s experience in creating “Leap of Faith,” a therapeutic riding center in Texas, inspired her retrofit of the *Sea Wolf*—total accessibility in the service of wilderness education without barriers!

Carol Mackie de Passera is one of Argentina’s foremost naturalist guides, and resides with her writer/naturalist husband, Carlos Passera, in Puerto Madryn, on Patagonia’s Atlantic coast. Their ecotourism company, Causana Viajes, is involved in conservation and educational efforts throughout Patagonia. Carol is of Welsh/Scottish descent, her great great grandmother having been among the first Welsh immigrants to settle in Patagonia’s Chubut Valley in the 1880’s. Carol’s great knowledge of Argentina’s natural and cultural history makes her an inspired and inspiring tour leader. Her passion for all things “Patagonian” is contagious—her expertise unsurpassed!

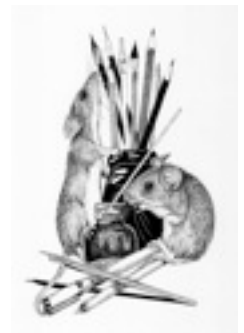
Bob Rozinski & Wendy Shattil are the rarest of species—full-time professional nature photographers. They have worked individually and as a team for more than 30 years and are known

world-wide for their award-winning images and reputation as environmental photographers of endangered species and at-risk ecosystems throughout North America. They have produced twelve books, and their images have appeared in *National Wildlife*, *Audubon*, *Nature Conservancy*, *BBC Wildlife*, *Nature’s Best*, *National Geographic* publications, and many others. As members of the International League of Conservation Photographers they have participated in several Rapid Visual Assessment Expeditions, documenting areas of critical environmental concern, such as wildlife habitat impacts of the border wall in the Lower Rio Grande Valley and the effects of gas field development on wildlife migration corridors and wildlife habitat in Wyoming’s Red Desert.

Dr. Mike Scott is Senior Research Ecologist for the U.S. Geological Survey, a member of the Degree Program in Ecology at Colorado State University, and the Watershed Sciences Dept. at Utah State University. His research focuses on the biology and ecology of cottonwoods and other riparian tree species of the Colorado River System, and on efforts to develop a predictive understanding of how western riparian vegetation responds to human-induced changes in stream flow. Mike is an excellent field teacher, and has a marvelous talent for sharing his broad knowledge of rivers.

Dr. Ed Wick has studied the biology, behavioral ecology, and habitat requirements of the Colorado pikeminnow (squawfish), humpback chub, and razorback sucker for more than 35 years. As both a private research consultant and in cooperation with numerous governmental agencies, Ed has focused his research efforts on the Yampa, Green, Little Snake, White, and Colorado Rivers. He is an extraordinary field teacher—an eloquent and compelling spokesman for the conservation of the native fish of the Colorado River System.

Marilyn Hailbronner’s drawings—rendered in pen and ink and color wash—grace Cloud Ridge’s brochure and website. They are a reflection of her love for the natural world and her passion for conservation. Her work as a medic for Cloud Ridge has taken her to remote wilderness areas around the world. Visit Marilyn’s website to purchase or see more of her art: www.wildinkwell.com



TRIP RATINGS

We rate our seminars to assist you in choosing the learning experience that's right for you. Trips are assigned a number from 1 to 4 according to the degree of activity and fitness required. A careful reading of our trip descriptions should provide additional information about trip activities such as hiking or sea kayaking.

- (1) **EASY:** Hotel, lodge, ship, or boat-based, no camping, hikes of up to 2 miles, and minimal exposure to high elevations.
- (2) **EASY TO MODERATE:** Lodge, ship, or camping based, hikes of 2-4 miles, optional sea kayaking, possible small plane travel, and moderate elevation gains.
- (3) **MODERATE TO STRENUOUS:** Expedition ship, boat or raft-based, remote wilderness localities, possible primitive camping, small plane travel as needed, and trail or off-trail hikes of up to 6-8 miles over rugged, mountainous terrain.
- (4) **STRENUOUS:** Expeditionary and rugged in nature, primitive camping, full-day hikes in steep, mountainous terrain, some hikes in excess of 8 miles, and possible sea kayaking or whitewater rafting.

A WORD ABOUT EXPEDITION TRAVEL

Because of the agility required on most expeditionary-class ships or on raft-based trips, participants with significant disabilities, chronic heart and/or respiratory problems, or other potentially debilitating medical conditions are advised NOT to register for these trips. Please note that the *M/V Sea Wolf* is rated as fully **Accessible**. By forwarding the registration deposit for any expedition-class trip (3 or 4) you are certifying that you are in good physical health and capable of performing all normal activities on the expedition.

TRIP CANCELLATION & TRAVEL INSURANCE

We now **require** that all trip participants purchase some form of travel insurance, either **trip cancellation** or **medical emergency/evacuation coverage**, or some combination, to protect your travel investment in the event of illness or injury to you or to a family member prior to or during the trip. Contact Cloud Ridge for information on the range of insurance options available. Emergency evacuation from remote, wilderness-sites is extremely expensive and is generally not included in standard medical insurance policies. Participants covered by Medicare are advised that Medicare does not provide coverage outside the U.S; a travel insurance policy does. ***Don't leave home without it!***

Special Note: ➔➔ *Itinerary dates include time allowance for international/overnight flights.*

REGISTRATION & PAYMENT

To register for one of Cloud Ridge's seminars, simply fill out the registration form and send it to us, along with your **non-refundable** deposit (in parentheses). In the event that a trip is full, we'll add your name to a wait-list and return your deposit. Trip prices are based on double occupancy. Should you wish single accommodations (when available) or have no roommate and we are unable to assign one, please be advised that you will need to pay a single supplement. The balance of all tour fees is due **90 days** prior to departure, unless otherwise noted. Registrations received **within 90 days** of departure must include payment in full.

CANCELLATION POLICY

All cancellations must be made in writing. Because we must send payments to our travel suppliers well in advance of our departures, we cannot offer refunds beyond those described below. We appreciate your understanding! Cancellation refunds are made according to the following schedule:

- ◆ Cancellation received **90 days or more** prior to a trip's departure, all trip costs, less the deposit, will be refunded. The deposit will also be refunded if we are able to fill your space from a wait-list.
- ◆ Cancellation received **less than 90 days** prior to departure, no refund is possible unless we can fill your space from a wait-list.

CONTRIBUTIONS

Cloud Ridge Naturalists is a **nonprofit, tax-exempt 501(c) 3** organization providing educational opportunities in the natural sciences and financial support to entities and individuals conducting research in critical areas of conservation concern. If you feel that you would like to become a **Supporting Member (\$25)** or a **Sponsor (\$50 or more)**, we would be grateful for your support. All contributions, unless you wish to support a specific project, are used to underwrite our scholarships or to help defray Cloud Ridge expenses.

Cloud Ridge Naturalists

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