



Cloud Ridge Naturalists

FIELD DISCOVERY SEMINARS
2011

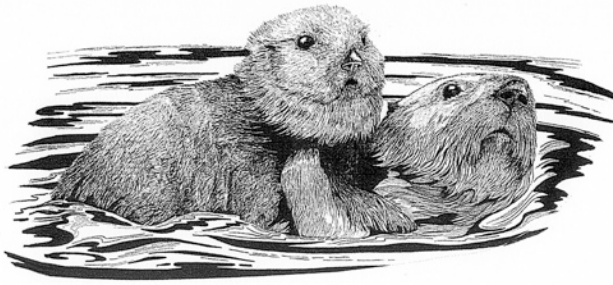
A WORD ABOUT CLOUD RIDGE

Cloud Ridge Naturalists is one of the oldest and most respected nonprofit field schools in the West. Over the past thirty-one 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 the cornerstone of our program. Not surprisingly, more than 80% of our participants each year have traveled with us before. Our educational vision relies on a multidisciplinary perspective well grounded in state-of-the-art science. Recognizing the powerful role that photographers, artists, and writers play in environmental education and advocacy, you'll find seminar offerings addressing these skills as well. 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 we've known. 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 always select fine lodging or picturesque campsites that have a strong sense of place, and make every effort to live up to our reputation for excellent food. We also take your safety, comfort, and enjoyment seriously—even in the most remote field settings. Our trips open a magical window on the natural world!

Many of the places Cloud Ridge visits are at risk—the impacts of global climate change and environmental degradation transcending international and ecological boundaries. We all need to move beyond the “last great place” model that drives most ecotourism and become better-informed stewards—not just quick “snapshot” sojourners. Our leadership position in environmental education has emboldened us to embrace three complementary strategies to enhance our educational outreach: (1) a program of natural history seminars for the general public, now in its fourth decade; (2) scientific and cultural exchanges emphasizing conservation biology; and (3) publishing efforts focused on natural history books and related visual media. Visit our website at www.CloudRidge.org for our annual posting of “Field Notes,” slideshows of our recent trips and conservation projects, and a look at Cloud Ridge Publishing's very first book, *Valley of the Dunes: Great Sand Dunes National Park and Preserve* (2010). We look forward to seeing you on our next sea voyage or journey afield!



CONSERVATION IN FOCUS SERIES

*Glaciers move in tides. So do mountains,
so do all things.* (John Muir)

I. CONSERVATION IN FOCUS: ALASKA'S GLACIER BAY NATIONAL PARK

May 7-19, 2011 (13 Days/12 Nights)
Bob Rozinski & Wendy Shattil,
Kimber Owen, Marilyn Hailbronner,
and the *M/V Sea Wolf* Crew

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. Glacier Bay is a deepwater fjord system with two arms, Muir Inlet and the West Arm, each more than 65 miles long. Traveling 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 biologically diverse areas.

May is a magical time to be in Glacier Bay, largely because the weather is at its best and we have these spectacular fjords to ourselves—just

the bears, the first returning whales, and the thousands of migrating shore- and seabirds traveling the Pacific Flyway. Few people know this ice-bound wilderness as well as the *Sea Wolf's* owner, Kimber Owen. 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. Both brown and black bears, recently emerged from their 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 intertidal zone. For the wildlife of Glacier Bay and the outer islands, this is truly a time of plenty.

With all of Glacier Bay as our classroom, the year's first **Conservation in Focus** workshop, embodies the true spirit of an expeditionary voyage. Photography is a powerful tool for building a conservation constituency—whether you are interested in projects close to home or in the most remote corners of our changing world. Wendy Shattil and Bob Rozinski, members of the International League of Conservation Photographers, are recognized worldwide for their evocative images and for their compelling portrayals of at-risk ecosystems. But long before the camera became a standard piece of field equipment, expedition naturalists kept field journals in which to record their discoveries. Cloud Ridge's artist, Marilyn Hailbronner, follows that tradition, sharing her techniques for using drawing and photography to enhance your natural history observations.

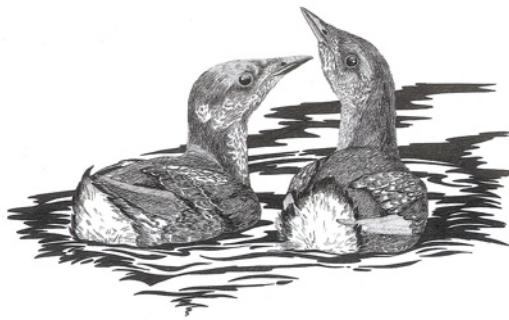
Capturing the attention of your viewer requires a thorough understanding of your subject—as well as a strong sense of photographic integrity and ecological stewardship. This workshop is designed to refine your photographic skills and to help you make a difference with your images. We'll create a photo book that truly conveys the magic of “place.” Our hope is that this voyage of discovery will provide inspiration for other conservation projects.

Price: \$4,995 (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 7 & 18), two group dinners ashore, the services of a five-person crew and three naturalist leaders, roundtrip Air Excursions charter flight to Gustavus from Juneau (including a special scenic flight), all boat and hotel transfers, full sea kayak outfitting and instruction, gratuities to the *Sea Wolf's* crew, and all applicable state and local taxes. **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.



II. CONSERVATION IN FOCUS: THE SALISH SEA & SAN JUAN ISLANDS

October 2-9, 2011 8 Days/ 7 Nights
Bob Rozinski & Wendy Shattil, Jennifer Hahn,
Bill & Shannon Bailey and *M/V Catalyst* Crew

Thousands of years before the arrival of European settlers in the Pacific Northwest, the Coastal Salish flourished along the shores of one of the most biologically rich inland seas in the world. The Salish Sea, named in honor of those first inhabitants, straddles the Canadian border and includes Washington's Puget Sound, the Strait of Juan de Fuca and the San Juan Archipelago, and British Columbia's Gulf Islands and the Strait of Georgia. Connected to the Pacific Ocean primarily via the Strait of Juan de Fuca, the 17,000-square-kilometer Salish Sea receives an almost constant influx of nutrient-rich freshwater from British Columbia's Fraser River, the Skagit, and

the many smaller rivers of Washington's mainland—the essential building blocks for the sea's extraordinary biodiversity. The strong currents and extreme tidal exchanges that characterize the Salish Sea create optimal conditions for nutrient upwelling and for the proliferation of the photosynthetic plankton that forms the base of the marine food chain. Over 7 million people live within the drainage basin that nourishes the Salish Sea, including the cities of Seattle, Vancouver, Victoria, Nanaimo, Bellingham, Port Townsend, and Tacoma—a reality that poses a significant environmental challenge now and in the future.

The San Juan Archipelago lies at the heart of the Salish Sea and provides the perfect setting for our second "**Conservation in Focus**" workshop. Life in the San Juan Islands is governed by the sea's rhythms—and we turn our attention to navigating a watery maze of channels, passes, and reaches aboard the *M/V Catalyst*, a 76-foot classic wooden boat originally built in 1932 as the floating laboratory for the University of Washington. Today, with owners and naturalists Bill and Shannon Bailey at the helm, Pacific Catalyst carries on the conservation tradition. The ultimate "classroom" afloat, *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 a more intimate, seal's-eye view of the marine world—the perfect platform for aspiring conservation photographers. Our **Conservation in Focus** leaders include the renowned nature photographers Wendy Shattil and Bob Rozinski, and naturalist co-leader Jenny Hahn, one of the Northwest's foremost guides and an award-winning author.

The key to the biological richness of the San Juan Archipelago lies in the diversity of terrestrial and marine habitats available to plants and animals — evergreen forests, grasslands, salt marshes, embayments, estuaries, beaches, rocky shorelines, and deepwater fjords. In fact, these productive marine waters are home to several "giants" of the marine world—the North Pacific giant octopus, the plumose anemone, giant red sea urchin, and the geoduck, largest of the burrowing clams. The Salish Sea is home to all five species of Pacific salmon, as well as sea-run steelhead and bull trout. It also provides critical habitat for marine mammals such as migrating grey whales, resident and transient populations of killer whales, harbor

seals, Steller and California sea lions, and river otters. At least 165 species of birds depend on the Salish Sea and its adjacent terrestrial habitats for survival. The San Juan Islands lie within the rain shadow of the Olympic Mountains, which results in a greater diversity of terrestrial habitats than is typical of many wetter mainland areas. The seabirds and shorebirds we'll see include murrelets, guillemots, murres, auklets, scoters, grebes, oystercatchers, and sandpipers. Many will have just arrived from breeding areas in more northerly Pacific waters. All seabirds live at the mercy of wind and wave. As the sea goes—storm-ridden or serene—so must they. So it goes, too, for the entire Salish Sea realm—in all its beautiful complexity. We now know that the survival of this unique ecosystem is intimately tied to the ecological health of the sea as well as to that of the land—making the entire web of life especially vulnerable to the impacts of global warming, marine pollution, diminished food resources, fish farming practices, commercial fishing and seabird by-catch, logging, and human populations.

Delivering a strong conservation message with your images requires a thorough understanding of your subject—as well as a sense of the importance of photographic integrity and ecological stewardship. As an integral part of this workshop, we'll create a custom photo book that captures the essence of the Salish Sea—as well as the environmental challenges that loom on the horizon. Don't miss this opportunity to refine your photographic skills, to be inspired, and to learn how to make a conservation difference with your images!

Price: \$2,450. (includes a \$500 deposit)

Group Size: 12 Trip Rating: 2-3

Price Includes: 5 nights/6 days aboard the *M/V Catalyst*, all meals and beverages (including wine and beer), 2 night's lodging (**October 2 & 8** in Friday Harbor on San Juan Island), two group dinners ashore, all instruction by our photographic and naturalist leaders, full sea kayak outfitting, *Catalyst's* four-person crew and all gratuities, a copy of our group-produced photo book, and a copy of Jenny's *Pacific Feast*. The price quoted is *per person* based on double occupancy. The *Catalyst* has only one single berth cabin. A single supplement of \$950 is required of any participant preferring non-shared boat accommodations or for whom we have no roommate available. **Does not include** roundtrip airfare or travel from your point of departure to Friday Harbor, San Juan Island.

Seminar begins with dinner and lodging in Friday Harbor on October 2 and concludes with dinner and lodging on October 8.

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.



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

May 29-June 4, 2011

**Sarah Drummond, Dr. Emmett Evanoff,
Dr. Geoff Hammerson, Dr. Mike Scott,
Dr. Ed Wick, and Holiday River Expeditions**

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 22nd journey of discovery on the Yampa River—an unparalleled wilderness and learning experience!

Price: \$1,550 (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 Holiday Inn Express in Vernal, Utah. **Does not include** trip insurance, camping gear (which can be rented from Holiday) or roundtrip transportation to Vernal from your point of departure. The adventure begins on May 29th at 8 PM at our hotel in Vernal, Utah and ends with departure for home on the morning of June 4th.

SOUTH AMERICAN PROGRAMS

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

November 12-28, 2011 17 Days/ 16 Nights →→
Carol Passera, Fran Enright, Deb Tewell,
Marta Valdiviezo & Local Artisans

Andean textiles reflect the fabric of life—a unique heritage of woven stories and cultural traditions inspired by the windswept steppes 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. Andean textiles are known worldwide for their exquisite quality, intricate designs, and rich color palette. This unique workshop explores both natural and cultural history, wild fiber usage, and the textile traditions of two strikingly different regions in Argentina. Artisans in both areas will provide instruction and share their distinctive techniques for spinning and weaving. In the spirit of cultural exchange, we've been invited to teach felting techniques to local artisans who wish to add new fiber skills to their creative repertoire.

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. Where did the wool-like fiber come from? The Camelidae Family made its first appearance in North America about 35 million years ago. The radiation of a single species of Camelid to South America and Asia occurred 3 million years ago. In South America, this species evolved into the guanaco (wild progenitor of the llama) and the vicuña (wild progenitor of the alpaca). Both the llama and the alpaca are the result of the domestication and selective breeding of their wild progenitors by pre-Incan cultures beginning at least 6,500 years ago. With the Inca's ascendancy, woven cloth became such a valuable commodity that it often served as a status symbol or as a form of 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. Spanish textile designs and influences can still be seen in northwestern Argentina, but indigenous cultural traditions and artistic expression persists—virtually unchanged.

Our textile odyssey begins in Buenos Aires, with visits to museums and lectures by noted textile experts. We'll fly to Jujuy, in the heart of *Nor Oeste Argentino*, and then drive along the historic Camino Inca, through the cardón cactus-dotted foothills of the Andes, to the highland village of Purmamarca. Incan and Hispanic influences remain strong and vibrant throughout the region. We'll visit the partially restored ruins of Pucará de Tilcara, one of four pre-Inca villages built to guard the trade route along the Quebrada de Humahuaca. The region's most accomplished weaver and teacher, Marta Valdiviezo, will join us at our unique adobe lodge, Hosteria del Amauta. Marta will share the spinning and weaving traditions of the highlands, as well as show us how to dye with native plants. We'll travel the painted desert canyons of the Quebrada de Humahuaca, exploring the vast salt flats of Salina Grande and stopping at the village of Cochinoca. There will be opportunities to visit colorful artisan markets and galleries to purchase alpaca wool and textile treasures—inspiration for our own fiber work!

The beautiful colonial city of Salta, which serves as a cultural center for the textile arts of Northwest Argentina, is also home to the world-famous

Museum of High Altitude Archaeology—a unique window into the Inca world. We’ll view the mummified, hauntingly beautiful remains of three Inca children sacrificed in accordance with Inca rituals honoring Mama Huaco, the Inca ancestor who introduced them to maize. In 1999, archaeologists excavated the remains of two girls and a boy from a subterranean burial shrine near the summit of Volcán Llullaillaco. The “chosen ones” seemed at peace, each adorned in exquisitely woven clothing and accompanied by perfectly crafted miniatures of the tools and other goods that would be needed in the next world. To the Inca, the highest peaks in the Andes were the “guardians” of their world. Of the 200 peaks known to have archaeological remains, 40 are located within the Province of Salta.



Shifting our focus to Patagonia, we’ll travel to the heartland of the indigenous Mapuche people. The Mapuche developed their own weaving style, exemplified by double-faced textiles with complicated geometric designs. We’ll visit several artisan markets, where Mapuche women still gather to spin, weave, and sell their work. From our lodgings at Mirador Huancache, near the Mapuche village of Gualjaina, we’ll travel along the Chubut River and explore beautiful Cañadon de la Buitrera and Piedra Parada. We’ll visit the Mapuche weaver’s cooperative at Cushamen—where we’ll learn to spin and weave in the Mapuche manner. We’ll visit the Guenguel Project, at Estancia Don Jose, where luxurious fabrics and garments are being made from yarns that blend the finest quality Merino wool with that of domesticated guanacos. We conclude with a visit to the world-famous Cañon del Rio Pinturas and Cueva de las Manos (“Cave of the Hands”), where hundreds of prehistoric, brightly-colored hand prints and pictographs of humans and guanacos decorate the cave’s walls—a celebration of ancient Andean artistic traditions!

Price: \$5,250. (includes a \$1000 deposit)

Group Size: 16 Trip Rating: 2

Price Includes: all lodging, all meals, all transportation by van or small bus, lectures and demonstrations by local experts and artisans, entrance fees to museums/exhibits, naturalist guides and fiber artists, and airport/hotel transfers. **Does not include** roundtrip airfare to and from Buenos Aires (11/12-13 & 11/27-28) from your point of departure, internal flights as required (TBA), alcoholic beverages, or personal items.

WHY TRAVEL IN DARWIN’S FOOTSTEPS?

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 overshadow the epic voyage of discovery that inspired it. In 1831, the H.M.S. *Beagle*, under the command of Captain Robert Fitzroy, embarked from England to complete the survey and mapping of the South American coastline. No one guessed that Darwin, the callow 22-year old hired to be the expedition’s naturalist, would be both a gifted, intensely curious observer of nature and an extraordinarily intuitive geologist. We now view the *Beagle*’s five-year expedition as the most important scientific voyage of all time.

Committed to a life in science, Darwin spent the two decades following the *Beagle*’s return to England immersed in his expedition journals and notebooks, studying his specimen collections, conducting experiments, and corresponding with fellow scientists. Darwin’s *Beagle* narrative suggests that it was his geologic discoveries in Patagonia—the relationships between the fossil and living forms of both marine and terrestrial animals—that would prove pivotal in developing his theory of natural selection. The marine fossils he found in the high Andes, well inland from either coast, supported his growing belief in the Earth’s great antiquity and that violent cataclysmic upheaval occurred repeatedly. Darwin finally published *On the Origin of Species* in 1859—the now-famous book detailing the biological mechanisms responsible for the diversity of life on Earth, for variation within species, and for the

geographical distribution of species and varieties. Darwin's theory of evolution was an unequivocal and science-based rebuttal of creationism—a stand that placed him squarely at the epicenter of Victorian scientific and religious debate, the reverberations of which continue to this day.

Charles Darwin was, in many ways, the first conservationist—believing that humans represent but one tiny twig on an enormous and luxuriantly branching tree of life. Desk-bound and ailing during his later years, it was his memories of Patagonia that most sustained him. What would Darwin think of the challenges facing Patagonia today? Our first expedition traced Darwin's explorations along the Atlantic coastline of Patagonian Argentina and the fjords of Tierra del Fuego. Our *In Darwin's Footsteps (Part II)* begins along the Strait of Magellan and heads north to the high Andes and the Pacific coastline of Patagonian Chile, Chiloé Island, and the volcano country in Aconcagua's shadow.

**IN DARWIN'S FOOTSTEPS (PART II):
CHILEAN PATAGONIA AND THE HIGH
ANDES, INCLUDING TORRES DEL PAINE
NATIONAL PARK, VOLCÁN OSORNO,
CHILOE ISLAND, AND DARWIN'S CROSS-
ANDEAN JOURNEY TO MENDOZA**

**December 2-19, 2011 17 Days/16 Nights →→
Carol & Carlos Passera, Dr. Yan Linhart,
Sarah Drummond, and Marilyn Hailbronner**

We rejoin our intrepid explorers, Captain Fitzroy and Charles Darwin, as the H.M.S. *Beagle* leaves the Strait of Magellan and heads north along the fjord-etched coastline of Chilean Patagonia. The province of Magallanes is truly a land of extremes—immense glaciers, ice-choked fjords and turquoise-blue lakes, towering granite spires, snow-covered volcanoes, alpine grasslands, wind-swept steppes, emerald-green beech forests, and mist-drenched temperate rainforests. The region encompasses the realm of the Andean condor and is home to a fascinating bestiary of unusual species—the guanaco, mouse opossum, Darwin's rhea, austral parakeet, Chilean flamingo, black-necked swan, and many others.

Flying south from Santiago to Puntas Arenas, located on the Strait of Magellan, we visit two historic sites—Puerto Hambre (Port Famine) and Fuerte Bulnes (Fort Bulnes). Port Famine was the



ill-fated colony founded by Spanish conqueror Pedro Sarmiento de Gamboa in 1584 to prevent British pirates from crossing the Strait and attacking Spanish settlements along the Pacific coast. More than two centuries later, in 1843, Chile established Fuerte Bulnes, later replacing it with Punta Arenas—finally securing claim to the Strait of Magellan. As Fitzroy and Darwin did in 1834, we'll visit the grave of Pringle Stokes, the *Beagle's* captain during the first South American survey. In 1826, in the midst of surveying the western shores of Tierra del Fuego, Captain Stokes took his life when the hardships of his command became unendurable. On that first trip, Stokes' subordinate officer, Robert Fitzroy, took over as the *Beagle's* captain—leading ultimately to Fitzroy's command of the second survey expedition, the participation of Charles Darwin as the expedition's naturalist, and the repatriation of the three Fuegian hostages taken to England as part of Fitzroy's misguided desire to bring the “civilizing” influence of christianity to Tierra del Fuego.

We'll visit Cueva del Milodón, where the fossil bones of giant ground sloths were recovered. Darwin's fascination with giant Pleistocene-age mammals (megafauna) began early in the *Beagle* voyage, when he discovered fossil bones of at least nine extinct species in northern Argentina, including those of a slightly smaller sloth, *Mylodon darwini*. We'll spend several days

exploring Torres del Paine National Park, regarded by many as the most dramatic mountain scenery in the world. From our base at Hosteria Lago Grey, with its view of the Grey Glacier and the ebony-capped Cuernos del Paine, we'll hike and experience this wilderness landscape much as Darwin might have done. Torres del Paine is one of the best places to observe and photograph guanacos. We should see the season's first baby guanacos (chulengos) as we explore Paine's lush alpine highlands. Our visit coincides with the peak of the bloom, the luminescent reds of Chilean firebush and Magellanic fuchsia contributing to the firestorm of color we can expect. We'll explore elegant, old-growth forests of southern beech, listening for the distinctive tapping of a giant Magellanic woodpecker or the arrival of a noisy flock of bronze-green austral parakeets. We'll scan the swiftest rivers for torrent ducks, whitewater aficionados, and watch quiet back eddies for Andean ruddy ducks, flying steamer-ducks, or ashy-headed geese. In Torres del Paine's secluded valleys, we may even catch a glimpse of a Patagonian gray fox or a rare huemul deer.

The snow-covered volcanoes of the Andes appear like islands in a cloud-capped sea as we fly north up the coast, to the bustling Pacific port city of Puerto Montt. The entire country of Chile forms part of the Pacific "Rim of Fire" and geologists have identified some 2,085 volcanoes, 55 of which are considered active. We'll arrive in Puerto Montt with ample time to wander the city's colorful harbor, watch fishing boats off-load their catch, and enjoy the famous seafood and craft markets at Angelmó. Traveling northeast to the Chilean Lake District—volcano country—we are reminded that Darwin watched from the Beagle's decks as the night sky lit up with the spectacular, molten-red eruption of Fuji-like Volcán Osorno. Darwin later learned that hundreds of miles to the north, Volcán Aconcagua and Volcán Coseguina (which he guessed to be 2,700 miles north of Aconcagua) erupted violently on that same night and that the earthquake associated with the Coseguina eruption was felt 1,000 miles away. The coincidence of these eruptions inspired Darwin to theorize that certain volcanically-active zones must be interconnected at depth. Our own explorations here will emphasize the scenic, geologic, and biological diversity that so intrigued Darwin during his visit—the algae-green Río Petrohué and its lava-bench waterfalls, turquoise-hued Lago Llanquihue, the Valdivian temperate

rainforest at Lahuen Ñadi National Park, and the magical landscapes along the lower slopes of Volcán Osorno. We'll hike through a rainforest preserve dominated by alerce (*Fitzroya cupressoides*), a Chilean and Argentinian endemic evergreen related to the redwood and giant sequoia. Thickets of native bamboo (*Chusquea*) form a distinctive understory in these ancient forests, attracting unusual birds such the chucao tapaculo, huet-huet, and green-back firecrown.

Darwin was especially intrigued by his visit to the Chiloé archipelago—where even the indigenous creation mythology originates in the fiery crucible of the island's volcanoes. Chiloé's Isla Grande, the second largest island in Latin America, is surrounded by several smaller groups of islands, many of which are joined at low tide. To reach Isla Grande, we take a ferry across Chuchao Channel, which separates mainland Chile from Chiloé. The archipelago and its people, the Chilotes, present a culturally distinct experience, with architectural styles, music, dance, and craft traditions clearly distinguishable from those of their fellow Chileans. Darwin noted that the geographic isolation of Chiloé had given rise to several unique plants and animals. We'll sample many of Chiloé's highlights, focusing on Parque Tepuhueico, where we'll explore lush Valdivian rainforests in hopes of spotting a Darwin's fox, tiny pudú deer, or one of the shy, tree-dwelling marsupials. The coastal dunes and rocky beaches provide opportunities to see colonies of both Magellanic and Humboldt penguins in close proximity, rock cormorants, kelp geese, sea lions, sea otters, and many other species.



Of Darwin's many horseback expeditions into the South American backcountry, none were as geologically fruitful for him as his cross-Andean traverse from Santiago, Chile to Mendoza, Argentina—all within the mighty shadow of Volcán Aconcagua, South America's highest peak. Though our journey won't require ten mules to transport our provisions, we'll see many of the places Darwin did as he crossed the great Cordillera—spectacular multi-hued ridges of volcanic and sedimentary strata, Volcán Tupungato, Puente del Inca (a natural bridge) and its associated hot springs, the wildflower-dotted puna (alpine) along Uspallata Pass, and the climber's trail to Volcán Aconcagua—before dropping down into the world-famous vineyard country of beautiful Mendoza. We'll celebrate another grand adventure *In Darwin's Footsteps* with a glass of Malbec held high in Darwin's honor!

Price: \$7,200. (includes a \$1,000 deposit)

Group Size: 18 Trip Rating: 2

Price Includes: 17 days/16 nights, including all hotel/airport transfers, all ground transportation, all lodging, all meals, services of three naturalist leaders, local guides/lecturers, all national park and museum entrance fees, and all gratuities.

Does not include roundtrip airfare (12/2-3 & 12/18-19) to Santiago from your point of departure, internal flights/airport taxes (~\$585), 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 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* (2010), and author of *The Naturalist's Guide to the Southern Rockies* (2008).

Sarah Drummond is a naturalist/artist who grew up traveling with Cloud Ridge. She received a B.A. from Maine's College of the Atlantic, where her studies emphasized ecology, island ecosystems, and art. Awarded a Thomas J. Watson Foundation research fellowship, Sarah spent a year traveling to Argentina, French Polynesia, New Zealand, Australia, and Greenland "following in

the footsteps" of artists who accompanied major exploratory expeditions. She is an adjunct faculty member at COA and currently completing a Masters in Environmental Studies at Prescott College. Sarah spends her summers as a naturalist/kayak guide on the *M/V Catalyst* in Southeast Alaska. Visit her gallery at www.science-art.com.

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.

Jennifer Hahn is a writer, illustrator, naturalist, wild harvester, teacher, and coastal traveler. Calling land her second home, Jenny has 30 years of wilderness travel, including guiding natural history trips by sea kayak in the San Juan Islands for 21 years, solo-kayaking from Alaska to Washington, thru-hiking 1100 miles on the Pacific Crest Trail, and many seasons guiding in Southeast Alaska. She is author of the award-winning *Spirited Waters: Soloing South Through the Inside Passage*, and *Pacific Feast: A Cook's Guide to West Coast Foraging and Cuisine*, a delightful melange of wild foraging adventures, field guide notes and color photos, conservation, and 65 fabulous recipes from chefs from Alaska to California.

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. Marilyn works aboard the *M/V Sea Wolf* as a naturalist/kayak guide in Glacier Bay. Her dual role as a medic for Cloud Ridge has taken her to remote wilderness areas around the world. Visit Marilyn's gallery at www.wildinkwell.com



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 popular courses in field ecology at Wesleyan University in

Connecticut. He is an outstanding field zoologist and teacher, 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.

Dr. Yan Linhart is Professor of Biology, Emeritus at the University of Colorado. His research and teaching focus on the ecology and evolution of plants, the genetics, ecology, and biogeography of forest trees, and the interactions between plants, their pollinators and parasites. To answer these questions, Yan has conducted field research in North America, Central America, and Europe. He is also a passionate advocate of the need to incorporate evolutionary thinking in conservation biology and ecosystem restoration. Yan is an exceptional teacher and is known for his ability to convey the magic of evolutionary biology.

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 early 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 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 and Chile'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 through-

out 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.

Deb Tewell and **Fran Enright** combine their unique fiber art skills for "*Weaving Andean Stories*." **Deb** brings her passion for combining art with inspiration from nature. She's studied with master felt artists and taught others the craft, including workshops in 3-dimensional felt forms. Her portfolio includes flatwork (scarves and shawls) and dimensional felt (purses, hats, etc.), winning recognition at the Taos Wool Festival. **Fran** is a retired biology teacher, as well as an ardent birder, botanist, and conservationist. She's studied with master felt artists and has taught felting in Colorado and Argentina. Her portfolio includes nuno felting, felted fabric, and dimensional felt, and her work has been exhibited at the Boulder Handweaver's Guild and Weaving Southwest.

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. 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.

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 areas is extremely expensive and 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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