The Brothers Wild

Frank and John Craighead's groundbreaking study of grizzly bears helped save the carnivores from extinction. For the twins from Chevy Chase, it was just another chapter in a lifetime of adventure.

By VICKI CONSTANTINE CROKE

Twin brothers, twin passions: John Craighead, left, with a peregrine falcon; Frank with a goshawk, circa 1939.

PHOTOGRAPH COURTESY CRAIGHEAD FAMILY

John Craighead at his home in Missoula, Mont., earlier this year.

Left, John moves an immobilized yearling bear in the early 1960s at Yellowstone, probably to prevent it from sliding, disoriented, into the creek. Right, John releases a processed bear.

PHOTOGRAPHS COURTESY CRAIGHEAD FAMILY

IT IS THE MID-1960S — A WARM, SUNNY DAY AT YELLOWSTONE NATIONAL PARK, where a 500-pound male grizzly bear known as No. 36 is slumped in a drug-induced haze. Even flattened by tranquilizers, the big bear dwarfs the four researchers in Western-style clothing who are racing the clock to pull every piece of data they can from him — weighing him, taking blood samples, checking his teeth. He grows larger still when he awakens suddenly with a shattering roar. Groaning, groggy and gladiatorial, the bear rises and charges blindly at the members of the group, who scramble into their red Ford station wagon. In a dizzy rage, the bear barrels like a bristling, fanged locomotive toward the packed car, running straight into the passenger door and then heaving himself onto the hood, his head seeming to fill the entire windshield. As the animal bellows again, the car is jammed almost cartoonishly into reverse, and the big, disoriented bear slides off.

To aficionados of National Geographic documentaries, the scene is one of the most popular in the organization's ample, thrill-filled archives. It is also a small taste of the action-packed and intertwined lives of a set of identical twins and grizzly research partners, John and Frank Craighead. The brothers were dashing, handsome, intrepid, scientifically minded and athletically built, and are best known in conservation circles for their groundbreaking 12-year study of grizzlies in Yellowstone.

Beyond the appeal of their adventurous lives, several factors have made the Craigheads eco-idols: their serious and sometimes controversial battles to save the grizzly, their prescient efforts to protect American rivers and their forward thinking on ecosystems. In 1998, the Audubon Society named the twins among the top 100 figures in conservation of the 20th century. And this year's delisting from the federal Endangered Species Act of grizzly bears in and around Yellowstone is a direct ripple effect of their legacy (the Craighead family, however, thinks the change in status is premature). Yet today, the brothers seem little known outside the realm of well-versed naturalists.

Frank died of Parkinson's disease in 2001 at the age of 85. John, now 91, lives in Missoula, Mont. He writes poetry and sketches, mostly animals. He likes to get down in the dirt of his garden and weed. And several times a week, his son John takes him to an indoor pool for a swim. On an airless day, with the temperature hitting 100 degrees, I pulled up to the modest beige Western-ranch-style home John and wife Margaret have lived in for the past 50 years. A rehabilitated raven named Rudy, shaggy, jet-black and as big as a hawk, is lurking in the shade of the Ponderosa pines by the back door. Inside, spectacular close-up photographs that the Craighead twins took for National Geographic line the walls, along with snowshoes, the head of a mountain goat and, on the coffee table, a bronze cast of a massive grizzly paw.

John wears a headband Native American-style across his forehead to keep the wisps of gray hair out of his blue eyes. He is almost totally deaf, but he is still fit, and his smile — at once shy and mischievous — is instantly recognizable from the old documentaries. It was clear as he spoke that the lifetime of adventure and deep connection that he shared with his brother were never far from his mind.

THERE IS A RICH ARCHIVE OF CRAIGHEAD MATERIAL — NATIONAL GEOGRAPHIC ARTICLES AND DOCUMENTARIES; books the men wrote, such as *Hawks in the Hand* from 1939 or *Track of the Grizzly* from 1979; journal entries from their studies; and piles of books on grizzlies that cite their work. But for the brothers, it all started with a baby barred owl. The Craighead boys were only about 10 or 12, by John's count, and inseparable — with people hailing them usually not by name, but by "Hey, Twin!" The twinned identity issue went deep with the boys themselves. So deep, in fact, that sister Jean Craighead George (author of *My Side of the Mountain* among many other award-winning children's books), recalls that Frank and John always used the personal pronoun "I" instead of "we" when referring to the two of themselves. They grew up in Chevy Chase, and had spent one weekend day as they often did — on a long hike along the Potomac with their entomologist father, who was a walking field guide to plants, bugs and animals.

> When the brothers discovered that one of their kestrels had been killed by a boy with a BB gun, Frank wrote: "I hope he never realized what killed him; I hope he kept his faith and love in humans to the end."

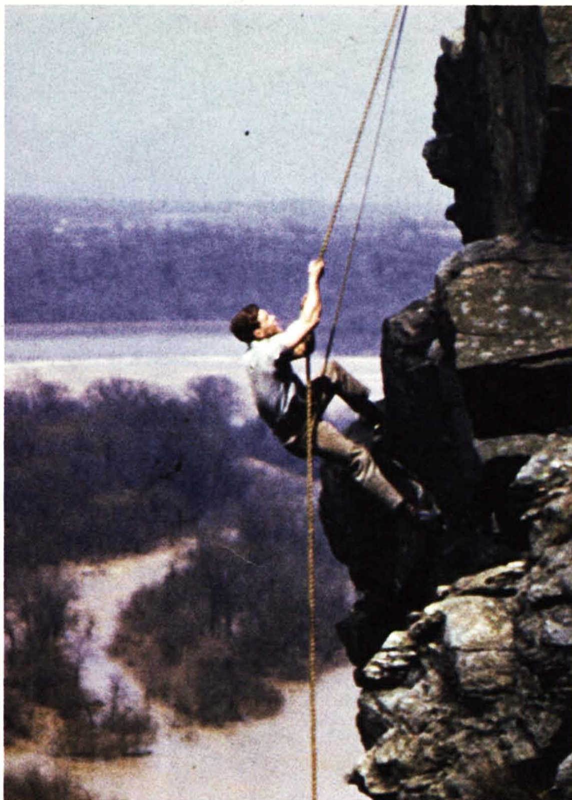
At a culvert trap, John holds a shotgun while University of Montana student Maurice Hornocker times a bear's reaction to a drug dosage.

PHOTOGRAPH COURTESY CRAIGHEAD FAMILY

It was May, evening was falling, and John remembers that he didn't have much more on his mind than the waiting dinner of roast beef and his mother's special orange pudding as he trudged homeward. But an owl silently flew overhead. And near an old sycamore, their father pointed out a pellet (owls eat prey animals whole and then burp up the inedible parts — hair and bones). Most likely there was a nest with young there, Frank Sr. said. The boys were suddenly overwhelmed with the desire to capture an owlet, and John scrambled up the sycamore, despite a lack of equipment and their father's disapproval. Soon after, the boys came home with their first baby owl. And from that moment forward, John says, "we were sold on nature."

There were many birds after that — peregrines, prairie falcons, kestrels, Cooper's hawks.

As soon as they had equipped themselves with clothesline rope and a pair of climbing spurs from a telephone lineman, no nest near the Potomac — in a cliff or tree — was beyond the grasp of these star varsity wrestlers. Of course, their pursuits led to many scrapes. Once, Frank was attacked by a mother goshawk as he checked her nest high up in a pine tree; she struck him several times in the chest and hand. Often enough, the boys had their hands ripped open by dirty talons, which often led to infection. Boulders rained down on them during climbs. Ropes broke. And swift currents carried them away. As would become a lifelong trait, the boys shrugged off their brushes with danger. Another time, someone noticed them on a



Left, John climbing into a peregrine aerie at Harpers Ferry in 1939. Right, Frank, left, and John in India with "Bapa."

PHOTOGRAPHS COURTESY CRAIGHEAD FAMILY

cliff along the Potomac and sent for help. Not usually a nervous climber, John began to feel a little spooked by the sight of the waiting emergency vehicle. Frank reassured him: "To heck with them. If we fall, a broom is what they need, not an ambulance." They learned from an old National Geographic article and from the birds themselves the ancient skill of falconry. They would capture young hawks from nests and feed them starlings, sparrows, mice and lean beef. With gloved hands, they carried the birds around the house to habituate them. Holding out bits of meat, they would patiently teach the birds to fly to their gloved hands, increasing the distance little by little, until the birds could be taken outside.

They hunted the raptors outdoors, setting them off after pigeons or crows. The results were beyond expectation. "We do not worry whether they will return to our outstretched hands," they wrote. "We know they will." And, without exception, the Craigheads gave the birds their freedom, usually after a single season, though several elected to stay. The twins mended the tails of birds who had lost or broken feathers by painlessly reconstructing, or imping in, new ones. They used needles and glue for the task, and often borrowed the replacement feathers from other birds (startlingly enough, a crow's tail substituting for the missing one of a Cooper's hawk, for instance).

Their intimacy with the bird world would yield information found nowhere else. They determined distinguishing character traits among birds of prey — unlike other hawks, for instance, Cooper's hawks are reluctant to visit their nests if humans are nearby. So sure and pioneering were their observations that the Craigheads would impress the editors at National Geographic Magazine when they were only 19, writing the article "Adventures With Birds of Prey," which would eventually be published in the July 1937 issue. That would be the start of a long association with National Geographic, with many more articles and TV documentaries to come.

They would spend a lifetime crafting love poems — but poems in the form of field reports, population graphs and behavior analyses. Their passion for animals was expressed in methodical, meticulous study — practical, but also sometimes sentimental.

John wrote of sitting quietly in a blind and looking deep into the eyes of a mother peregrine falcon: "Those eyes revealed her nature, and in them I could see her life. I could see love of freedom, of wild unconfined spaces. I could see the spirit of adventure, the desire for thrills, an appetite for daring." He could also have been writing about his own life.

Their world opened up because of the birds. Driving an old Chevy through Wyoming in pursuit of hawks the summer after graduating from Western High School, they fell in love with the American West and vowed to return someday for good. They longed for the spectacular and rugged landscape, the incredible wildlife. And their taciturn natures and distaste for formality were at home there.

But back East and throughout the country, they were also exposed to some tough realities. Not everyone saw what they saw in the animals they loved. Several times, the twins ran into hunters or farmers who delighted in killing birds of prey — beating the young to death, setting steel traps, shooting them. The Craigheads worked hard to combat the prevailing wisdom that hawks were depriving humans of game, but they knew what they were up against. When they discovered that one of their own kestrels, who had come to trust humans, had been killed by a boy with a BB gun, Frank wrote: "I hope he never realized what killed him; I hope he kept his faith and love in humans to the end."

BY THE TIME BOTH BROTHERS GRADUATED FROM PENNSYLVANIA STATE UNIVERSITY WITH MATCHING SCIENCE DEGREES IN 1939, they were already corresponding with R.S. Dharmakumarsinhji, who requested that they call him Bapa, which they were told meant "Little One." Bapa was the youngest of three royal brothers in the small princely Indian state of Bhavnagar, on the Gulf of Khambhat. His eldest brother was the maharaja, and Bapa led a privileged life focused mainly on falconry, hunting and swimming, later writing books about Indian wildlife.

How much trouble the bears were in, no one really knew. What was known, the Craigheads wrote, was that "the usual 'communication' between man and grizzly is through a rifle bullet."

Frank, left, and Maurice Hornocker at Castle Geyser in Yellowstone in 1966. Frank is likely holding a citizens band radio.

PHOTOGRAPH COURTESY CRAIGHEAD FAMILY

Bapa had read the Craigheads' 1937 article in National Geographic and had written to them, one falconry-addicted youth contacting two others. The letters were followed up in September of 1939 with a two-week visit from the prince, whose family boasted an ancestry that could be traced back to Kublai Khan. Hosting such a royal visitor was unnerving for this very modest American household: The twins were forced to wear their best suit jackets in the sweltering Washington heat to meet him at the airport; their anxious mother splurged on hiring a maid to serve dinner; and, the Craigheads reported, "Dad even wore his coat to the table, a thing we had never seen before." All anxiety soon vanished. For Bapa, the twins later noted in National Geographic, "was in any language a regular guy!" He swilled Coca-Cola and milkshakes. He swam and canoed. He danced to jazz music with American girls and fielded fly balls at pickup baseball games.

In 1940, the twins went to visit the prince in India for several months. Bapa had gotten married by that time, so instead of staying at his palace, the Craigheads were given a suite of four rooms at the state guesthouse (along with a personal driver and "touring car"). Bapa's home, a sleek, modern structure with an in-ground swimming pool and several tiered diving platforms, was nearby. The twins were presented with their own peregrine falcons, which they kept at the hotel, and every day they went out with Bapa and his expert staff to fly the birds.

The twins did their best to fit in, they wrote in their National Geographic article and a book also called *Life With an Indian Prince*. As a gift, Bapa had traditional Indian outfits made up for them, complete with turbans. They ate exotic food, which Frank reported "burned the devil out of my guts." They drank more than they were accustomed to — though they had tried to "condition" themselves for a party by drinking "lemon gins" in the previous weeks. And, at a royal wedding, in which 100 elephants — some pulling silver car-

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Grizzly

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riages — took part in the processional, they were propositioned by "dancing girls." The women, who were hired to do more than just sing and dance to entertain the men, serenaded the twins: "I love you. Just pinch me and you'll know the greatest happiness. Come and sleep with me tonight." (National Geographic chose to leave the last sentiment out of its pages.) The twins weren't interested, but the lusty maharajas were. Looking back on it, John told me, "We were pretty late in finding out about girls."

But these quintessential Americans lost their bearings a bit in the faraway land. Bapa and his brothers were enthusiastic hunters, and the conservation-minded Craighead boys jumped in with both barrels. After one day of hunting, John wrote that providing meat for the men, reducing the numbers of abundant animals and learning about exotic creatures, "helped me rationalize the killing . . . in the excitement of it all, I forgot all sentimental ideas I had against needlessly taking life and shot for the mark with keen enjoyment."

They aimed their guns at a dizzying list of victims, including quail, jackal, "jungle cat," civet, imperial eagle, tawny eagle, the endangered great Indian bustard, cobra, wild boar, cranes, the now-endangered chinkara (a shy, buff-colored gazelle), dogs, goral and Nilgai (a big, thick-necked antelope). They never got the chance to hunt a tiger, but they did watch beaters drive an Asiatic lion (rare even by that point, critically endangered today) toward the princes, who blasted the animal from rattan perches set up on a platform. The Craigheads always defended the sometimes wanton hunting practices of the royal brothers, but they had some trouble accepting the lion kill. In their journal, they graphically describe the scene as the magnificent animal is skinned. They note, it "seemed a great shame that such a perfect animal should be the victim of a young prince who had no real interest in a lion, dead or alive." By the end of their trip, they seemed to have had enough. One journal entry states, "I don't care to shoot animals merely for the sport of shooting, even for control purposes."

BACK AT HOME, THE CRAIGHEADS EARNED THEIR MASTER'S DEGREES in ecology and wildlife management from the University of Michigan. They both were married to athletic and adventurous women— Frank to Esther Stevens, from Illinois, and John to Margaret Smith, from Wyoming, whose father was a Park Service ranger in the Grand Tetons. And the couples bought 14 acres of land near Moose, Wyo., just where the twins always said they would settle, building identical cabins next to each other. At the start of the war, the brothers were off to Chapel Hill, N.C., where the U.S. Navy had commissioned them as lieutenants so they could set up a survival training program, as they had for the ROTC on the Michigan campus. They wrote the manual *How to Survive on Land and Sea*. After the war, they continued their survival training work for the Navy in the Marshall Islands, the Philippines and Japan.

The brothers got their PhDs in vertebrate ecology from Michigan in 1950. And their dissertation was published as "Hawks, Owls, and Wildlife: Ecology of Raptor Predation," which, the Wildlife Conservation Society's carnivore conservation biologist John Weaver says, "set a standard for the study of raptors." John Craighead took a position as professor of zoology and forestry with the University of Montana and as leader of the Montana Cooperative Wildlife Research Unit. Frank worked in the 1950s for the U.S. Fish and Wildlife Service in Nevada and then the Forest Service in Washington.

For the first time in their lives, they were working and living far apart, and except for summers in Moose, it would last for nearly a decade. But John, who was immersed in Western wildlife issues and intrigued by the mysteries of grizzlies, started considering a long-term study. Both brothers saw it as a way to work together again — a shared, but largely unspoken desire.

GRIZZLIES CAN WEIGH UP TO 1,000 POUNDS, RUN AS FAST AS A HORSE, crush a moose's skull with one powerful blow and, after biting a 700-pound rival's thigh, shake him, in the words of the Craigheads, as a "terrier shakes a rat." The bears' tread may be silent, their mood unpredictable and their bite powerful enough to puncture thick metal. These are hardly typical attributes of an underdog, yet in 1959, when Frank and John began their new project, that is precisely what the humpbacked bears were. With their massive bulk and menace, grizzlies, who are the very image of wild America, were considered at best nuisances and at worst threats to human life. In the lower 48 states, they were vanishing.

How much trouble the bears were in, no one really knew. What was known, the Craigheads wrote at the time, was that "the usual 'communication' between man and grizzly is through a rifle bullet." With funding from several sources, including the National Geographic Society and the National Science Foundation, the Craigheads began what the society called "Operation Grizzly Bear" in Yellowstone and surrounding forest areas. It was the largest grizzly population in the country outside of Alaska, but one that was under increasing pressure from human use. The study was meant, they wrote, "to rendezvous with grizzlies in their most intimate moments." The twins started off trying to answer the basics: How many grizzlies were part of the Yellowstone ecosystem? What did they eat? How long did they live, and what were they dying from? When did they mate? What was the size of a typical home range? Were there seasonal patterns to their movements? What was the social structure of grizzly society? Where and how did they den in winter? What were their reproductive rates?

The brothers wanted to document every detail of grizzly bear life, and to help them along the way, they almost always had a handful of graduate students — many of whom went on to become highly regarded carnivore experts themselves. The twins started their first year by capturing 30 grizzlies (in drop-door metal traps) — immobilizing them and taking as much data as they could before affixing plastic ID tags in the

> Often, the Craigheads had to race into a stream to prevent a bear they'd shot with a tranquilizer dart from drowning — unsure whether the animal was still awake enough to attack.

A bronzed paw from a cast of grizzly No. 7, one of the first bears in the Craigheads' 12-year Yellowstone study.

bears' ears. The next year would bring another 37, and by the end the brothers figured that upwards of 600 grizzly bears had been part of the study. Within a year of starting, they wrote, "Now we can write the terms for a badly needed grizzly life-insurance policy." What they were beginning to find out gave backbone to a management program that could help save the grizzly from extinction.

But they could have used a little insurance themselves, given all the hazards.

They had to make their way through snow sometimes 20 feet deep, over "jackstraw piles of wind-felled trees" and along miles of rough terrain in extreme weather. In order not to lose a bear they were following, they might not sleep, except for a few catnaps, for 40 hours straight; continue hiking in sweltering heat for 24 hours after their canteens ran out; or strip naked to ford the waist-high water of an icy stream at night, leaving their extremities so numb that they would stumble for the next quarter-mile of the hike.

They were always on guard not to "jump," or startle, a shortsighted bear. And the twins, masters of the one-arm pull-up, according to the family, insisted that any students on the project work on their calisthenics so they could get up a tree — fast — if need be. Sometimes as a prank, the brothers claimed that a bear was coming just to drive home the point.

By 1966, the Craigheads would report, "Time and again we have been treed by bears." Once, as Frank stood in the semi-darkness, he was suddenly aware of seven grizzlies running shoulder to shoulder directly at him "like an onrushing train." Fortunately, grizzly bears generally want to avoid human contact, and, at the last second, as the bears caught his scent, they veered away. Often enough, the Craigheads would have to race into a stream to prevent a bear they'd shot with a tranquilizer dart from drowning — unsure, even as they plunged in, whether the animal was still awake enough to attack. One time, a mother bear tracked them in their truck to get her cub back. And on another adventure, they were backed out onto a high, snowy cliff ledge with nowhere to go by a black bear they thought had been knocked out with a dart. It was a relief when the bear, wanting to simply get away from the human intruders, scaled a vertical snow wall to escape them.

But the Craigheads shrugged off the notion that what they did was dangerous. They were proud of the fact that they never had to use their guns defensively, though 15 bears — primarily in the first years of the study — died during immobilization as the twins perfected their ability to estimate dosages. While admitting that dealing with a drugged and unpredictable grizzly was like "working over dynamite with a damp fuse," their attitude was to find humor in the face of danger. "When releasing grizzlies," Frank wrote dryly, "point them away from you."

A Yellowstone Park ranger asked the brothers if they were worried that the bears — who could still feel, hear, see, and smell while drugged — might recognize them and come after them at a later date. Frank replied: "Bob, we've got that all worked out. Each time we handle a grizzly, we slip into ranger jackets and put on ranger hats."

THE BROTHERS GOT TO KNOW SEVERAL BEARS VERY WELL — and named them — Pegleg, Shorty, Loverboy, Scarface and Beep. And they always wrote with compassion about the animals' struggles in life and, often enough, their deaths. Female grizzly No. 75 died after being darted, though the twins tried reviving her with artificial respiration. John wrote in his entry for September 28, 1963: "We had great respect for No. 75 as she was the epitome of grizzly nature . . . she was one of the fiercest and most aggressive bears we have encountered . . . She had attacked us on several occasions. We all felt depressed at losing this old friend." They were fonder still of Bear No. 40, better known to the Craigheads and to their National Geographic readers as "Marian." Once, after the brothers had startled her, she merely glared at them tolerantly, when a more aggressive bear would have charged. The Craigheads realized that all the time they were learning about her, she was taking their measure as well. "A relationship of trust, and perhaps respect, was developing," Frank wrote. Through her, the twin scientists would learn much about grizzlies — such as the fact that females are not sexually mature until the age of about 4½. They learned through her actions that grizzlies prepare their winter dens well in advance of their actual slumber. And, through many of her social interactions, they came to better understand bear hierarchies; for example, females with young — by sheer force of necessity — often ramp up their own aggressiveness and advance their place in the pecking order. Marian was a bear with a personality. Born in 1958, she was prolific in grizzly terms — having seven cubs in seven years. Watching her, especially with her cubs, made the bear world seem closer to their own.

"We had great respect for No. 75 as she was the epitome of grizzly nature . . . She had attacked us on several occasions. We all felt depressed at losing this old friend."

"Out in the meadow Marian was half sitting, half lying on her back, in much the same attitude as a rocking chair that a slight push would topple backwards," Frank wrote in his book *Track of the Grizzly*. "It was the mother bear's nursing position, and the two large cubs were sucking vigorously and roughly." The babies made a buzzing sound — like that of bees around a hive — that expressed their contentment. And when Marian wanted them to stop, she rolled the cubs over in an invitation to play. It was with Marian, on September 21, 1961, that the Craigheads made a technological breakthrough that would change the speed, depth and breadth of their work — and that of countless other field biologists. That was the day they placed a radio collar around Marian's neck. For the first time out in the field, scientists could reliably find and follow a big, elusive carnivore using telemetry. In his book on grizzlies, nature writer Thomas McNamee would say this event would "make possible the first penetration of human light through the ancient opacity of bearhood."

OVER THE COURSE OF 12 YEARS, THE CRAIGHEADS DISCOVERED THAT THE GRIZZLIES WERE NOT LONERS, as was previously believed, but maintained elaborate social hierarchies. They observed that females will adopt orphaned cubs and that the bears were slow reproducers. The twins were able to follow bears to their dens for the first time — discovering when bears head for their winter sleep (it's triggered by certain snowy weather conditions), and where and how they construct their living quarters (facing north, usually at the base of trees or stumps, usually outfitted with conifer boughs as snug beds). The bears always made their own dens and never reused them. Home ranges varied widely for individual bears, the brothers learned. All bears were artful scavengers and had favorite seasonal food sites (most often including a park dump). The Craigheads found it was true that you could slice a grizzly's premolar and determine age as you would a tree, by counting the rings. Their bears sometimes lived to be 25 or 30, but the average lifespan was more like 5 or 6 years. The researchers listed all the ways grizzly bears died — battle wounds, old age, malnutrition, even gored by bison — but noted that humans were usually the cause.

Throughout most of the '60s, their bear study was progressing at a great clip, and the Craighead profile remained high with National Geographic documentaries. Most all of it was a family affair, with wives and kids joining the twins throughout the summer. John Craighead's son John remembers hanging out at bear headquarters and long nights of poker played with the grad students.

All the while, the brothers were serious advocates for the conservation of the land and water around them, fighting for wild river conservation. Much of their writing was used unchanged in the Wild and Scenic Rivers Act of 1968, which Congress enacted to protect certain designated free-flowing waters. But in 1967, several factors were set in motion that would, by 1971, end their grizzly study and any association the brothers had with Yellowstone.

A philosophical push from a committee appointed by the secretary of the Interior to bring national parks back to "the condition that prevailed when the area was first visited by the white man" already had been recommended in 1963. It was an impossibility for many reasons, including that no park was large enough to be self-regulating and self-sustaining. In 1967, Jack Anderson became superintendent of Yellowstone and ordered the lands to be spiffed up for the looming centennial celebration for 1972. Also that year, in a single bloody night, two women in separate attacks were killed by two different grizzlies, which had both been routinely hand fed, in Glacier National Park. The danger of bears habituated to people had always been a concern — even through the days of "bear jams," when cars jockeyed so tourists could hand-feed begging (most often black, not grizzly) bears along the road.

But now, officials wanted tourist experiences bear-proofed. Yellowstone dumps — where so many grizzlies fed — were to be shut down as quickly as possible to stop bears' association with human refuse and therefore with humans. Management had also decided to stop culling the growing numbers of elk, and in the 1980s, the Atlantic magazine would report: "The major effect of the new eco-philosophy, so far as Yellowstone was concerned, was to end the killing of elk, of which there were too many, and begin the killing of bears, of which there were too few."

The Craigheads wanted the dumps closed gradually, so that the bears could replace them with other food sources. Otherwise, they worried the bears would go looking in campgrounds, and that would lead to trouble. The brothers pointed out that bears don't distinguish between what we would call "natural" or "unnatural" food sources. To grizzlies, garbage dumps were ecocenters in the same way as a clover field or a berry patch. The Craigheads were outspoken in their opinions, and park officials tried to muzzle them — issuing a new memorandum of understanding to the researchers that demanded that anything the brothers said or wrote about the park be approved by park officials first. In fact, independent research had become so troublesome that the Park Service brought in its own researchers. Animosities escalated. The Craigheads' headquarters (an old unused mess hall) was bulldozed. And

From left, John and Frank on the shore of the Snake River in Idaho in 1970.

PHOTOGRAPH BY BRAD DECECCO

PHOTOGRAPH BY S. GEBHARDS

bears began to die. Just how many was in dispute. The Craigheads felt official numbers were suspect, and some rangers in Yellowstone concurred. A report from the National Academy of Sciences is damning: "Control actions" (trapping, translocating or killing) went from 13 in 1967 to 63.3 a year between 1968 and 1970. The peak grizzly population during the Craighead years was 245, and, according to a report in the journal Ecology, presented by the Interagency Grizzly Bear Study Team, the population was likely down to 136 by 1974.

Some of the dead bears would inevitably be among those that readers of the Craigheads' exploits had gotten to know. After the dump closings, Marian's range increased to find enough food. She even entered campgrounds for the first time in her life. In the fall of 1969, with the added pressure of a berry shortage, Marian and her yearling cubs began to scavenge a campground. Early on the morning of October 13, a park ranger got between Marian and her young in order to immobilize the cubs. "As might be expected," Frank wrote, "Marian came out of the woods at full charge." She was shot dead with several slugs from a .44 magnum.

The Craigheads were outspoken in their opinions, and park officials tried to muzzle them. Eventually, the brothers' headquarters were bulldozed. And bears began to die.

Since Marian's death, life has improved for the grizzlies in and around Yellowstone National Park (a population that straddles forests in Wyoming, Idaho and Montana). It is now believed there are 500 to 600 of them — enough for the government to have taken away their "threatened" status this past spring — a move that a number of environmental groups oppose.

JOHN RETIRED FROM THE UNIVERSITY OF MONTANA SHORTLY AFTER THE END OF THE GRIZZLY STUDY. Frank was an adjunct professor for the State University of New York at Albany. Both men still conducted research and stayed active in conservation work. Frank headed up the bear division of the International Union for the Conservation of Nature and Natural Resources for a time, writing *Track of the Grizzly*, and John founded the Craighead Wildlife Wildlands Institute in Missoula, and wrote scientific books on grizzlies and grizzly habitat. Combined, over 50 years of work, the brothers published more than 70 technical papers, nearly a dozen popular pieces for National Geographic and more than eight books.

Years later, nature writer McNamee would say in his book *The Grizzly Bear*, "The Craighead study still stands as the longest-running, most thorough, most fertile, and most definitive of them all, the standard by which all subsequent study of bears has been measured." McNamee wrote that the Craigheads' work "forms the very basis of contemporary science's knowledge of grizzly bears." Strangely, after the big battles for the grizzly, there was a rift between the twins. "An identity crisis at the age of 55," said one family member. The estrangement occurred over Frank's solo publication of *Track of the Grizzly* in 1979. John's family says he was blindsided by it. And though they maintain the brothers never stopped talking to each other, the conflict is often mentioned by many people who knew them at the time. John Craighead's son John says the brothers were always squabbling about one thing or another, as siblings do, and in some ways this was no different than other disagreements.

Frank's wife, Esther, died in 1980. And almost as soon as he remarried in 1987, he was diagnosed with Parkinson's. By the end of Frank's life, the twins, who so often seemed joined as one, were together once more.

John Craighead's daughter, Karen Haynam, recalls a day at Frank's house during that time. John was at a loss about what to do, what to say. "Just be with him, Dad," Karen advised. So John sat with Frank, and the two men, who had been so close that they could practically read each other's minds, sat silently together, holding hands. ▣

Vicki Constantine Croke writes about animal issues for media such as NPR and Discover magazine. Her latest book, *The Lady and the Panda*, is being adapted for a film. She can be reached at vickicroke@vickicroke.com.

» Key to last week's Second Glance

(November 4)

1. Yellow-eyed Susan
2. True fly
3. Bright-eyed
4. Blue fish
5. Holeness
6. Seeing stars
7. Bead and switch
8. Caught one!
9. Cellular division
10. Ladybugged
11. Starless
12. Am I blue?
13. Fresh greens
14. Cordless
15. Rotated

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