

Bald Eagle

COMMON NAME: Bald eagle

SCIENTIFIC NAME: *Haliaeetus leucocephalus*

OTHER NAMES: White-headed eagle, white-headed sea eagle, American eagle

IUCN CONSERVATION STATUS: *Least Concern (population increasing)*

DESCRIPTION: A large brown fish eagle with long, broad wings and a short, rounded tail. In adult plumage bald eagles have a striking white head and tail; juveniles are dark throughout, often with light spotting.

SIZE: Length: 70–90 cm (28–36 in); Wingspan: 180–230 cm (71–91 in); Weight: 2.5–6.3 kg (5.5–14 lb)

THREATS: Historically threatened by DDT poisoning. At present most populations are increasing. Habitat loss, mercury, and lead poisoning may be the greatest current threats.

DISTRIBUTION: North America—United States and Canada, throughout; parts of northern Mexico

MOVEMENTS: Most populations in interior northern latitudes (>46°N) are migratory; mid-latitude populations are generally nonmigratory. In winter, large groups often gather near large bodies of open water and abundant food sources.

HABITAT: Breeds and forages primarily near water, although especially in winter is often found far from water. Nests are often placed in large trees overlooking water.

DIET: Takes a wide variety of prey, especially fish, but also birds and mammals of many types as well as carrion.

NOTES: Bald eagles were once essentially extirpated in the eastern United States and were rare in the western United States. The species has rebounded remarkably through eradication of DDT and by reintroduction programs. The bald eagle is the national symbol of the United States.

Author's Biography

TERYL G. GRUBB prepares to climb to a bald eagle nest in Arizona, United States. Photo courtesy of the author



Teryl Grubb graduated from Colorado State University in 1968 with a BSc in wildlife management. During his summers on the Kodiak National Wildlife Refuge, Alaska, he became interested in bald eagles and soon landed a fellowship for graduate research at the University of Florida. These eagle studies were interrupted when Teryl served as a lieutenant in the Navy's Underwater Demolition/SEAL teams at the end of the war in Vietnam. Afterward, in 1976, he attended the University of Washington, where his MSc in wildlife ecology focused on analyzing bald eagle nesting habitat. When funding fell through, he had to learn to fly an aircraft so he could do his own aerial surveys along the entire marine coast of Washington. Following initial employment working on bald eagle management plans in the then Washington Department of Game, in 1977 he joined the US Forest Service Rocky Mountain Research Station in Arizona as a scientist in wildlife research to study the population and habitat requirements of the bald eagle (and peregrine falcon). In Arizona, Teryl was responsible for conducting early pioneering surveys of nesting and wintering bald eagles and for determining the habits and habitats critical to both distinct populations. He and the local Tonto National Forest biologist conceived, designed, and implemented the volunteer Arizona Bald Eagle Nest Watch Program, which is still used today to monitor and protect active nest sites. Teryl was part of a rescue team for bald eagles in Alaska's Prince William Sound following the *Exxon Valdez* oil spill. He helped relocate eagle chicks from Washington, Alaska, and British Columbia for successful reintroduction efforts into California. He continues to work extensively in Michigan and Minnesota, still climbing eagle nests for banding and blood sampling as part of a Great Lakes' bio-sentinel program.

BALD EAGLE, UNITED STATES

Teryl G. Grubb

"One of you boys will continue radio-tracking bears, and the other will start climbing trees to band bald eagle nestlings . . ." That's how it all began for me back in the summer of 1967, on the Kodiak National Wildlife Refuge in Alaska, my first summer job in the wildlife field. And as it turned out, that inauspicious beginning has led to a fascinating, sometimes adventure-some, 43-year odyssey of watching, studying, and enjoying bald eagles throughout much of their North American range. There have been numerous exquisite, priceless moments along the way, like . . . lying quietly on a snow-covered, frozen lake in the still of a -29°C (-20°F) predawn morning and hearing the quiet whish of the wind through the feathers of an adult eagle gliding into a perch above me . . . or encountering an exceptionally precocial, uncharacteristically defiant, still gray young eaglet who charged me at the edge of the nest and remained there, unabashed with little chest out and stubby wings spread, with his head almost in my armpit as I removed his sibling for processing below . . . or coming upon an adult female bald eagle trading lunges with a full-grown coyote at an elk carcass one snowy winter day, with neither one giving quarter. But there have also been the inevitable embarrassing, occasionally hair-raising, and always humbling misadventures that none of us like to talk about much. Still they are part of the fabric of our experience, and while often good for a chuckle after the fact, they can usually help guide us to improve our efficiency for future efforts. What I'm about to share is one of those misadventures. I do so with the guarded hope that age, seniority, and experience might insulate me from whatever chastisement this tale elicits from fellow eagle biologists and experienced climbers.

Bald eagles are an incredible species. Their opportunistic adaptability is truly amazing. Think about it: their nesting habitat ranges from 6 m (20 ft) mangroves in the tidal swamps of south Florida, to 61 m (200 ft)-plus, giant Douglas firs and Sitka spruce in the Pacific Northwest. They are fish eagles to be sure, but they also successfully prey on birds, particularly waterfowl, and small mammals, even taking an occasional reptile or amphibian. If sufficient live prey is unavailable, they will switch to carrion, relying on whatever type of food is most abundant and easiest to obtain. Their habits and habitats can vary seasonally and geographically, as environmental and climatic conditions dictate. All of this notwithstanding, as a budding young wildlife biologist in 1977, when I was offered a research position with the US

Forest Service to study bald eagle distribution and habitat requirements in the desert Southwest, I was totally unprepared to find bald eagles nesting on cliffs among cactus. And, as I was soon to discover the hard way, I was woefully unprepared for climbing into those cliff nests to band young eaglets.

I had learned to climb bald eagle nest-trees on Kodiak Island during my two summers of banding there. Plus, in the time between my experience in Alaska and this new job in Arizona, I had learned to rappel and use ropes during my Naval Special Warfare training. So, I reasoned confidently, how big a deal could it be to take my specialized military training and adapt it to getting down a cliff to an eagle nest? To facilitate this first rappel, as well as be sure I could impress my colleagues and attending graduate student with my prowess, I purchased a new mountaineering harness to replace the rudimentary rope tie-off I had used in the Navy. However, I neglected to try the new system in advance. If I had, I would have discovered the new harness dramatically changed the way a carabineer handled the rope in a military rappel setup. An ex-Marine friend tended my rope from atop the 76 m (250 ft) nest cliff, while the others in our small banding party waited at the base of the cliff for me to lower the nestlings down to them for processing.

Excited to be making my way into an eagle nest once again, down I went. During the first 4.5 m (15 ft), as I worked down the vertical cliff face, I noticed my old military attachment was not giving me enough friction to control my descent effectively once my feet lost contact with the overhung face, extending the next 18 to 21 m (60 to 70 ft) below. Too late . . . *Snap! Zing!* Down I went, pretty much out of control, but *really* impressing my unsuspecting colleagues on the ground below. Fortunately, I landed on my feet on a broad ledge where I could regroup out of sight. With blistered hands, even within my heavy leather gloves, I cleaned out tangles in the rope and reset my attachment, doubling the wraps of rope around the carabineer this time for more friction.

My revised setup seemed to work better, permitting me to move down the remaining face under control to about 3 m (10 ft) above the nest, which was actually near the bottom of the cliff on a vertical rock protrusion. Okay, I thought, all is good again, no harm done. Onto the business at hand, but first I'll just check everything before lowering on down to the nest. Then my eyes fell on my single carabineer attachment. OH MY GOD!! My rope was pinched in the open gate of the carabineer and that was THE ONLY THING HOLDING ME on the side of the cliff!! To make matters worse, the pinched rope was jammed so tightly I could not free it to go up or down. I quickly

reattached myself to the climbing line, but was still left with the dilemma of how to extricate myself. Talk about humiliating! An ex-Navy SEAL stuck on the side of a cliff above an eagle nest. So much for impressing my colleagues. As for the two chicks below (well off to the side of my fall line, in case you were wondering), they just seemed to be watching passively, appearing to be totally fascinated, probably thinking to themselves, "Wow, what a jerk! Mama never told us there'd be days like this with so much comedic entertainment!"

The eaglets' amusement notwithstanding, I had to somehow get out of my rope jam. I tried inching up far enough on the broken irregular surface of the lower cliff face to release the tension on the jammed carabineer, only to have the strength drain from my fingers and have to fall back on the rope, with a very unsettling bounce. By the third attempt, however, there was enough stretch in the rope from the previous bounces to release the jam before my fingers gave out. Hurrah! Life is good again! But alas . . . no . . . that cliff wasn't done with me yet. *Snap!* The carabineer released again, and *Zing!* down I went past the nest outcrop, past the grad student, who had scrambled up to the base of the nest outcrop, all in a blur, this time with fleeting but full expectations of imminent pain! Yet, just that quickly I came to an abrupt stop, feet just touching the talus slope 4.6 m (15 ft) below the nest. My glove and shirt had got caught up in a kink in the rope, and all three (glove, shirt, and rope) got sucked into my carabineer to arrest my latest wild descent (any experienced climbers reading this will be cringing at this point). *Whewee*, I cannot believe it! Maybe not all of the spirits of this cliff are against me after all! Undaunted, I went ahead and climbed back up into the nest to retrieve the young eagles for processing. Since the climb from below was only 4.6 m (15 ft), you might be wondering why the plan was to rappel down to it in the first place, right? The original answer was to be fast and efficient, but sadly that ship had sailed much earlier! After we banded and attached radio tags to the chicks, I descended part of the way down off the nest outcrop, but again undaunted and still not realizing the underlying cause of my difficulties, I thought, just as one should get back in the saddle after being thrown from a horse, I'd rappel down the last 3 m (10 ft) or so. Unwise . . . as by now I'm sure you are expecting, once again came that horrifyingly familiar *Snap!* followed by the *Zing!* of the screaming rope as, once more, I fell uncontrolled to the ground, tearing all the remaining unbroken blisters on my hands and adding the last possible measure of humiliation to my disastrous first cliff nest climb/rappel in Arizona. Ahhhh! I was so relieved to be down and on

terra firma once and for all, having cheated death three if not four times, I didn't even care anymore. The grad student and I gathered our gear and happily set off slip-sliding down the lengthy talus slopes below the nest cliff, both of us enjoying the easy descent. The adult eagles came back to the nest site quickly, and once more all seemed good. That is, till we slid to a stop above a hidden 4.6 m (15 ft), near-vertical incline above the dirt roadway. We were able to get just enough of a short-lived foothold for one of us to make it off to the side, but given the day I was having, would it surprise you that I'm the one who slid straight on down to the road . . . and broke my wrist on impact? Really nice, here I survive the cliff, only to get injured walking back to the truck!

What a perfect ending to a perfect day, right? But oh no, there's still an epilogue. When my ex-Marine buddy came down from above, he first asked what the heck had happened on the cliff rappel, as we did not have radios back then to keep him updated. Next, looking rather pale, he pulled me aside and said, "You've got to see this," and showed me the climbing rope. Apparently each of the bounces I had taken had seesawed the rope over a sharp rock at the cliff edge, unbeknownst to either of us at the time. Two of the rope's three twisted strands were entirely severed, and the third did not look like it could have withstood another bounce. We looked at each other silently a moment, then he said, "I think we had better get some formal climbing training before we try this again." We did soon thereafter, plus we purchased and learned to use state-of-the-art equipment. Not long after, several of us from cooperating resource agencies in Arizona adopted an informal policy to not climb or rappel into any new cliff nests for the first time when chicks were present. Better to discover the site's idiosyncrasies and hazards when there were no youngsters in the nest to harm (or amuse, as the case may be).

Youth, false bravado, naive confidence in inappropriate, mismatched, and untested equipment, and a lack of proper technical training all contributed to this wild episode that makes a great story now, but that easily could have ended this enthusiast's eagle watching on a much more serious note long ago. Also, all evidence from this episode to the contrary, I have since made it a personal policy over the years to climb as fast and efficiently and as safely as possible, using proven techniques and equipment, and making every effort to minimize the time and impact on the pair of eagles whose privacy and home space we are intruding upon for our research endeavors.

Even so, I still remember the exhilarating emotional mix of excitement, honor, and humility I felt in the very first bald eagle nest I climbed into on

Kodiak so many years ago. That feeling has never diminished, even after more than 40 years. Yet I must admit occasionally now, when age, diet, and conditioning all conspire each succeeding year to make climbing into eagle nests a little more challenging . . . when sometimes on the way in to the nest site, especially if the hike is difficult through fallen timber or swampy wetlands, or if the tree itself is a tough climb . . . I start thinking, "Naw, maybe it's just not worth it any more." But then, when I get up to the nest . . . smell those "sweet" distinctive odors from decaying nest vegetation, rotting prey remains, and drying fecal material . . . come eye to eye with those captivating young eagle chicks, no matter what their age—big, brown, and defiant, or gray, gangly, and docile . . . scan around to take in the lofty, spectacular panorama of surrounding waters, coastline, or countryside . . . and look up to see those majestic white-headed, attending adults soaring overhead or perched at nest level in a nearby treetop . . . Then, as fast as *Snap! Zing!* all those second thoughts and doubts disappear like a rope whipping through an open carabineer of a naive, young climber. It still *is* worthwhile . . . much more so even. It still is one of the greatest privileges and pleasures any eagle watcher could ever hope to experience.