

IN MEMORIAM
R. WAYNE NELSON
1945–2017



R. Wayne Nelson and “man in the tree” (WWII origin) on Langara Island (Kusgwai), BC, Canada

Robert Wayne Nelson passed away from the ravages of progressive supranuclear palsy on the evening of 15 February 2017 at his home in Camrose, AB, with his wife Alora and daughter Jennifer (Willes) by his side. Wayne’s life was spent as a scientist, falconer, avid reader, writer, and researcher, photographer, art and music aficionado, loving husband, father and “Pa” to granddaughters Olivia and Vienna.

Wayne Nelson was born on 26 December 1945 in Vernon, British Columbia, Canada, the second of three sons of Bob and Verna Nelson. Although his father was a noted amateur entomologist, as the shy middle child, Wayne was the only one in the family to fall in love with hunting and observing wildlife. Much of his allowance was spent on a bow, many arrows, a taxidermy course, and glass eyes for roadkills and the few creatures that he shot and then “stuffed.” In Grade 7, Wayne’s interest in bomber aircraft and naval battles caused him to search for articles on World War II in *National Geographic Magazine*, where he stumbled onto the article “Life with an Indian prince” by John and Frank Craighead (Craighead and Craighead 1942), and their earlier article “Adventures with birds of prey” (Craighead and Craighead 1937). As a 13-yr-old, the next summer found him obtaining and training a young Red-tailed Hawk (*Buteo jamaicensis*), which his parents “miraculously” let him keep, indulging Wayne’s passion for falconry and fostering his appreciation of natural history.

At Wayne's encouragement, his father became almost as avid a birder as Wayne himself, and wanted additional reading material on birds. On the advice of a naturalist friend, Wayne's father asked for a sample of *The Condor*. They received the issue which happened to contain Frank Beebe's paper, "The marine Peregrines of the northwest Pacific coast," a report on Peale's Peregrine Falcon (*Falco peregrinus pealei*), the Queen Charlotte Islands, BC, and especially Langara Island from 1952–58 (Beebe 1960). That article laid another set of tracks that Wayne eventually followed. (In 2010, the Haida Gwaii Reconciliation Act officially renamed the islands Haida Gwaii, literally "islands of the Haida people," as part of a reconciliation protocol between British Columbia and the Haida people. Langara Island's Haida name is Kusgwai.)

At the age of 15, in addition to his love of falconry, Wayne fell in love with the woman who would be his wife for 49 yr, Alora White. Together they attended the University of British Columbia (UBC), where he hoped that something in the wildlife or parks subject areas might hold future employment prospects. His time at university was divided among zoology, his girlfriend/wife-to-be, and a female imprint Prairie Falcon, who all shared his attention and tiny dormitory room! In his fourth year, as he neared the completion of a B.S. at UBC, Wayne proposed to several universities that they might take him on as a graduate student to study the behavior of peregrines at Langara Island. Wayne posited that the seabird diet and resident status of those falcons should have kept them relatively "clean" of pesticides, and knowledge of the details of their behavior would be useful in (a) understanding the loss of eggs by eggshell thinning, breakage, and consumption by parent falcons, and (b) solving issues confronting current efforts to breed raptors in captivity. At the University of Calgary, Dr. Tim Myres decided this was an interesting proposal and accepted Wayne as a graduate student. In 1967 Wayne and Alora were married in Vernon, BC, and moved to Calgary, AB.

Wayne's research on Peregrine Falcons started on Langara Island in 1968 and continued for 43 yr, one of the longest continuing studies by an individual in the raptor world. What began as a 3-yr M.S. study (Nelson 1970) that concluded with a thesis and several papers on peregrine breeding behavior transformed into a Ph.D. dissertation (Nelson 1977) that closely examined the behavior and ecology of the falcons, aspects that would be useful to captive breeding, husbandry and *in situ* management.

Wayne's study was almost entirely self-funded and conducted on vacation and other accrued work leave. The logistics of the Langara studies were remarkable. In the early years (in graduate school), Wayne spent almost 6 mo per year on the island, sometimes beginning as early as February. The first field season was spent in a house at Langara Lightstation, with no boat, and the second in a tent. During that second year, Wayne and Alora built a "base camp" (a 2.4×4.8 -m unheated plywood "cabin" constructed from scavenged materials) at Fury Bay and used a 3-m inflatable boat. That cabin still stands today. On many days, especially in cold, rainy weather in March, Wayne slipped into a blind at 0300 H, before the incubating falcon or its mate could spot him, observed all day, then left after dark. One can do no better to gain a brief understanding of Langara Island and Wayne's efforts than to read the article "Aloft on Langara" by David Pitt-Brooke, one of Wayne's field assistants (Pitt-Brooke 2001).

Soon after completing his Ph.D., Wayne spent a summer working for the Yukon Wildlife Branch; with a helicopter pilot he searched an 18–36 km-wide strip along the Dempster Highway for all cliff-nesting raptors. In 1978, he, Alora, and five-yr-old Jennifer lived out of a Yukon government camper-truck on the highway and studied the effects of automobile traffic and especially aircraft traffic on the nesting raptors. Because Clayton White had shown it to be possible with peregrines in Alaska (White and Nelson 1991), and because part of the job was to find nests and establish a Gyrfalcon (*Falco rusticolus*) study area for an incoming UBC student, Wayne spent some time "shadowing" a pair of nesting gyrs with a helicopter: "a supreme highlight" he would later say. Although the machine was noisy, the adult falcons seemed to treat it as if it were a giant mosquito; Wayne and the pilot would stay about 100 m behind and off to one side, and follow the Gyrfalcons as they hunted, harassing a few of the very abundant Golden Eagles (*Aquila chrysaetos*) while patrolling the perimeter of their territory.

He then served as a replacement instructor, teaching biology courses at Camrose Lutheran College from 1979–82. Then, in part because of his raptor background, Wayne was employed by Alberta Fish and Wildlife as a biologist, working 4 yr in Edmonton, and later 21 yr in St. Paul, AB. But, as one would expect from Wayne, there was a special condition attached to his employment that his supervisors understood or at least tolerated—he was allowed to "disappear" for 2 wk at the end of May and early June every year to continue research on the Langara Island Peregrine Falcons.

Langara Island, 3270 ha, once held approximately 24 peregrine eyries, a number that had decreased to between 5–10 pairs when Wayne's study started in 1968. Their major prey, Ancient Murrelets (*Synthliboramphus antiquus*) had declined from the world's largest colony of 250,000 pairs to a mere 14,500. Over the years, many things were blamed for the dual decline: rat predation and fishing by-catch for the murrelets, lack of prey and DDT for the peregrines, among other things. The situation turned out to be far more complex, a true trophic cascade. Ocean currents had warmed. Warmer water is impoverished, containing less dissolved oxygen and nutrients, less phytoplankton and zooplankton, and so on up the food chain. The entire food web had crashed, everything from salmon to sea lions and murrelets to peregrines. Once he realized that recovery might take decades, or might not even occur at all, Wayne adapted his studies, expectations, and goals. His most recent paper suggested effects of climate change and global warming; average fledging date of Peregrine Falcons on Langara Island had advanced 1 wk in 45 yr (Nelson 2014).

After formally retiring from Alberta Fish and Wildlife in 2006, Wayne spent 5 d most weeks working on the absolutely massive literature on the behavioral ecology of peregrines, other raptors, and many species of birds. In retirement, his love of raptors also continued through his work patagial-tagging Turkey Vultures (*Cathartes aura*) in central Alberta. During the months of July and August, Wayne was mostly consumed by the associated field work, literature, and correspondence. His voracious reading habit filled in the rest.

Sadly, the culmination of a lifetime of research went unfinished due to Wayne's illness and death. His plan was to eventually produce two monographs: the first tentatively entitled *The Falcon and the Murrelet: Population Limitation by Food Supply, Territorial Behaviour, and Reproductive Strategies in Raptors*; the second was to be a description of the behavior and ecology of the Langara Island peregrines. Several draft chapters of one of these works, dealing with avian population limitation and density dependence, are truly fascinating and we are all poorer that these works will not be completed. That he was unable to finish these seemed to be Wayne's one true regret during his last months.

Early on, Alora was Wayne's primary field assistant. However, over the years, Wayne had an assortment of volunteer field assistants and, remarkably, he even conducted 2 yr of surveys entirely alone, an almost inconceivable feat. With a bit of dark humor, Alora noted that the assistants' most important duty was to "report the location of Wayne's body." Wayne's two most notable assistants were Keith Hodson and David Pitt-Brooke; both made numerous trips to Langara. Keith, then a wildlife biologist with British Columbia Fish and Wildlife, conducted surveys in three early years (1976, 1978–1979) when Wayne was absent and has continued the surveys after Wayne became ill and unable to participate. Keith's 2017 survey in lieu of Wayne marked 50 continuous years of Langara peregrine surveys.

Alora wasn't kidding about Wayne's potential for an early, field-related demise. There were many life-threatening instances over the years: falling from a cliff on Cox Island; navigating treacherous reefs by compass in pea soup fog to Fury Bay; running out to sea (into the waves) to keep from swamping when the bottom of the Zodiac split, then by mere happenstance getting rescued by a fishing lodge tender boat whose crew fortunately spotted him; repairing an engine off the coast in 6-m waves; rescuing a fishing guide from an overturned boat who turned up at camp in the middle of the night (a co-worker drowned) and the subsequent nighttime boat trip around the island to the fishing lodge for help; boating 56 km on open ocean to Frederick Island, and more. Wayne experienced more incidents that he kept to himself, thinking that they were not unusual. All these instances of harrowing field days were usually related matter-of-factly by Wayne.

Wayne also liked to say that he gained personal insight during his Langara visits. On several occasions, he told the story of how one year his daughter Jennifer had been "sentenced" to be his assistant/boat driver as punishment for a high school curfew infraction. He smiled when recalling that he had unwittingly turned her into a "minor goddess" with the college-age young men working at the fishing lodge, who couldn't believe she was out there, let alone what she was doing. Wayne also explained that it was then that he realized that she had become an intelligent, competent, and attractive young woman in her own right and he related how proud he was of her then and still was, as she became a registered nurse and mother of two young daughters.

Wayne and Alora attended and participated in many Raptor Research Foundation (RRF) conferences and were often seen together, usually with Wayne in animated conversation about falcons. Wayne served RRF in many capacities, starting in 1972 as editor for the captive breeding symposium. In addition to 20 abstracts of presentations, Wayne produced at least 58 other published works. In the vein of his voluminous thesis and dissertation (together totaling 796 pages), which are considered "must reads" for anyone interested in

Peregrine Falcon behavior, Wayne concentrated much of his published works on breeding and behavioral aspects of falcons. These were vital contributions when captive breeding was in its infancy and many observers needed to understand what typical peregrine behavior was. Other publications may be a surprise to *Journal of Raptor Research* (JRR) readers. For instance, following his father's footsteps, Wayne wrote one paper on the migration of Painted Lady butterflies (*Vanessa cardui*).

Wayne understood and supported the importance of long-term studies of raptors. At one point he commented that he was 35 yr into his study when he decided, based on the continuing trophic cascade, that he had probably picked the wrong location for his field work. When TLF asked how he would know that without doing the 35 yr, he paused, smiled, and reflectively replied "Hmrrrrrr."

Wayne was a one-of-a-kind friend and ever-inquisitive colleague whose passing leaves a major void for many in the raptor world. Self-described as a "bit of an eccentric," Wayne Nelson could also be described as one of the last great Canadian naturalists in the traditional sense, who gathered information for the love of it, rather than notoriety. He created a data set that spans almost five decades and has been a remarkable contribution for those of us who love falcons, and other raptors. But, as Wayne once wrote, "Ordinary science cannot convey any proper sense of the creature at home in its environment—those great dark falcons enduring the fierceness of a west-coast winter. Perhaps it requires a different means of expression, closer to art and poetry, but no less essential in apprehending the lives of wild creatures" (Pitt-Brooke 2001).

Somewhere along the way, Wayne Nelson fell in love with the Queen Charlotte Islands, and we and the falcons Wayne adored are all better for that relationship. Simply put, Wayne was enamored with everything about this remote Canadian archipelago: the falcons and other wildlife, the solitude, the rugged beauty, the Haida culture, the friendships he made and so much more. And, the feelings were mutual: the Langara lightkeepers referred to Wayne as the "Indiana Jones of the bird world." Indeed, everyone on the island had such respect and admiration for Wayne and his decades of efforts that former head lightkeeper Gordon Schweers nominated him for the "Order of Canada," Canada's highest civilian honor and reserved for its most meritorious citizens. The request was eventually denied, but in typical fashion, Wayne deflected the recognition, saying there were folks far more deserving of such an honor.

Wayne is survived by his wife Alora, his daughter Jennifer, two granddaughters, Olivia and Vienna, and numerous colleagues and friends who enjoyed his enthusiasm, eccentricities, and a lifetime of friendly contributions to RRF, JRR, and the world of raptors. Wayne chose to not have a public memorial, but his immediate family traveled to Langara Island in July to celebrate Wayne's life. In tribute, the family requests that any donations be made to the Archives of American Falconry—Wall of Remembrance at The Peregrine Fund, Boise, Idaho, U.S.A.—**Tracy L. Fleming (Tlfleming@aol.com), 14423 NE 271st Circle, Battle Ground, WA 98604 U.S.A. and Joel E. Pagel, U.S. Fish and Wildlife Service, 2105 Osuna Road, Albuquerque, NM 87113 U.S.A.**

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In Memoriam Editor: Joel E. Pagel