

Stephen A. Holl (1949 – 2012)



Stephen A. Holl, who is best known for his work on bighorn sheep in the San Gabriel Mountains of California, passed away on 13 January 2012 at the age of 62 following a valiant battle with brain cancer. Steve held B.S. and M.S. degrees from the University of California, Davis and Fresno State University, respectively. While conducting his graduate work, Steve was supported by the California Department of Fish and Game (CDFG) through Federal Aid in Wildlife Restoration Projects W-51-R (Big Game Investigations) and W-52-R (Wildlife Investigations Laboratory). At the time, his work centered on the relationships between habitat use, body condition, and productivity of the North Kings deer herd, which then was one of the most well-studied deer populations in California. Steve's work with the North Kings deer herd was completed collaboratively with several well-known CDFG investigators, and he published widely in *California Fish and Game*. As time passed, Steve became an authority on habitat management techniques and, in particular, the relationships between habitat, mule deer, and bighorn sheep occupying chaparral ecosystems.

In 1978, Steve was hired as a wildlife biologist by the San Bernardino National Forest (SBNF), where his sole duty was to investigate the ecology of bighorn sheep in the San Gabriel Mountains, a southern California mountain range dominated by chaparral vegetation. He spent the next 5 years working closely with CDFG collaborators to compile the most detailed information then yet assembled on habitat characteristics, population dynamics, behavior, and food habits of bighorn sheep in that range, and in 1983 published an extensive report titled, "San Gabriel Mountain Sheep: Biological and Management Considerations." While completing that work, Steve worked diligently with conservation organizations and sportsman's groups to refine and formalize the San Gabriel Mountains bighorn sheep survey, which has continued largely on an annual basis for >30 years; the 2012 survey was completed just after Steve's passing.

While assigned to the SBNF Steve mentored two students—Kathleen (Hamilton) Longshore and William Perry, both of whom completed their graduate work on bighorn sheep. He also was responsible for acquiring the data that led to the translocation of bighorn sheep to historical habitat within the San Gabriel Mountains—the first translocation of desert bighorn sheep ever to occur in California—and to formerly occupied habitat at San Rafael Peak, in the Coast Range of Ventura County. Steve also collaborated on two important papers positing that bighorn sheep are distributed across the landscape as metapopulations, a concept that has evolved into a conservation paradigm and that forms the basis for the management of wild sheep and their habitat throughout much of North America.

In 1987 Steve left his position with the SBNF to pursue opportunities in private enterprise, and eventually established his own consulting firm. He maintained a strong focus on bighorn sheep, however, and as his interests broadened and he gained expertise in

fire ecology, he spent countless hours developing ideas, analyzing data, and preparing papers on the relationships between fire history, fire regimes, and bighorn sheep demographics. He recognized the importance of fire in the chaparral ecosystems of southern California, was critical of the fire suppression policies of land management agencies, remained a staunch proponent of the value of wildfires, and strongly advocated prescribed fire as a habitat enhancement tool. Steve also played a prominent role in the recent (2011) decision by the California Department of Transportation to not re-open California Highway 39 because of potential impacts bighorn sheep.

As chaparral vegetation matured following wildfires in the San Gabriel Mountains, bighorn sheep declined from approximately 750 animals in 1980 to fewer than 200 in the late 1990s. That decline was of considerable concern and, in 2004 at the request of the Los Angeles County Fish and Game Commission and the US Forest Service, Steve prepared a detailed conservation and restoration strategy for bighorn sheep in that mountain range. That document was agreed to and signed by the forest supervisors on the Angeles and San Bernardino national forests and by two regional managers from CDFG, and provides the basis for actions on behalf of bighorn sheep that, hopefully, will be forthcoming. Although management agencies failed to implement most of the recommendations contained in the 1983 report, the 2004 document called for extensive stakeholder involvement in an effort to enhance the probability of implementation.

Following preparation of the restoration strategy, Steve published extensively on aspects of the ecology of bighorn sheep in the San Gabriel Mountains, including the demographic history, the role of fire history on habitat selection, a demographic reconstruction of the population, and the relationships among weather, mule deer, mountain lions and bighorn sheep. Two other papers he was working on at the time of his death will be completed by collaborators.

Steve was a long-time member of The Wildlife Society (TWS), and previously served the Western Section of TWS as Vice-President, President, and Past President. He was also a member of the Desert Bighorn Council (DBC), and participated actively in meetings of the Western Section and DBC; recently, he had become active in the Association for Fire Ecology, and had presented his work at annual conferences of that organization.

Steve's public service included tenure as Chairman of the Parks and Recreation Commission of the City of Folsom, where he was instrumental in setting aside land for local parks. Steve's efforts on behalf of conservation were recognized in May 2010, when he was the recipient of the Lifetime Achievement Award and the Above and Beyond Award from the Society for the Conservation of Bighorn Sheep and the California Chapter of The Wild Sheep Foundation, respectively.

Steve's spirit lives on through Mary, his best friend and devoted wife of 37 years, twin daughters Amy and Eryn and their families, his mother and six brothers, eleven nephews and nieces, and his professional colleagues and many friends. His family is extremely grateful for the care he received while enrolled in a clinical trial at the University of California, San Francisco; through participation in that program, Steve was provided with the gift of time, a gift that allowed him to walk Eryn down the aisle and dance at her wedding, and to be here for the births of two of Amy's children.—*Friends and colleagues of Stephen A. Holl*