## Status of bighorn sheep in California

**TOM STEPHENSON**<sup>1</sup>, California Department of Fish and Game, 407 W. Line, Bishop, CA 93514, 760-873-4305

Abstract: California supports 2 populations of federally endangered bighorn sheep. Sierra Nevada bighorn sheep (Ovis canadensis sierrae) are a unique subspecies that occupies portions of the southern and central regions of that mountain range where elevations are the greatest (>14,000 feet). They typically spend summers in the alpine above 11,000 feet and winters at lower elevations between 5,000 to 9,000 feet, yet some Sierra bighorn spend the entire year in the alpine. In 2008, Sierra Nevada bighorn sheep numbered 369 animals, including 200 adult females, and occupied 8 herd units; recovery goals are 305 adult females distributed among 12 herd units. Issues receiving particular focus in the Sierra Nevada are the disease risk posed by domestic sheep, use of prescribed fire to enhance bighorn habitat, use of translocations to augment and reintroduce herds, and efforts to limit predation by mountain lions. The disease risk posed by grazing of domestic sheep on public lands adjacent to bighorn habitat in the Sierra Nevada is receiving considerable attention and continues to be a challenging management issue. Peninsular bighorn sheep (Ovis canadensis nelsoni) occupy the Peninsular mountain ranges in southern California north of Mexican border and are recognized as an endangered distinct population segment of desert bighorn sheep. In 2008, Peninsular bighorn numbered 876 animals among the 9 units within the range but remain below recovery goals in at least 2 of those units. Disease outbreaks continue to limit population growth in at least 3 units. An effort is currently underway to identify the most appropriate approach for augmenting struggling populations in the context of population viability.

The majority of California's non-endangered desert bighorn sheep (*Ovis canadensis nelsoni*) occupy mountain ranges in the Mojave and Sonoran deserts and number close to 4,000 animals. Fifty-five of 67 desert ranges are currently considered occupied although many ranges have fewer than 50 animals. Numerous desert mountain ranges, that support bighorn, exist within the boundaries of National Parks and military properties where hunting is prohibited. Seven hunt zones exist within the desert ranges and provide the opportunity for 19-20 hunting permits annually. While many desert populations are stable or increasing, many also are threatened by a variety of factors including reduced connectivity from habitat fragmentation, disease risk posed by domestic livestock, and habitat loss through climate change. Currently there are no documented herds in northern California although there is interest in reintroducing bighorn to native ranges.

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<sup>&</sup>lt;sup>1</sup> Email: tstephenson@dfg.ca.gov