

WHAT HAVE WE LEARNED FROM FALL RAPTOR COUNTS OVER THE PAST FIFTY YEARS?

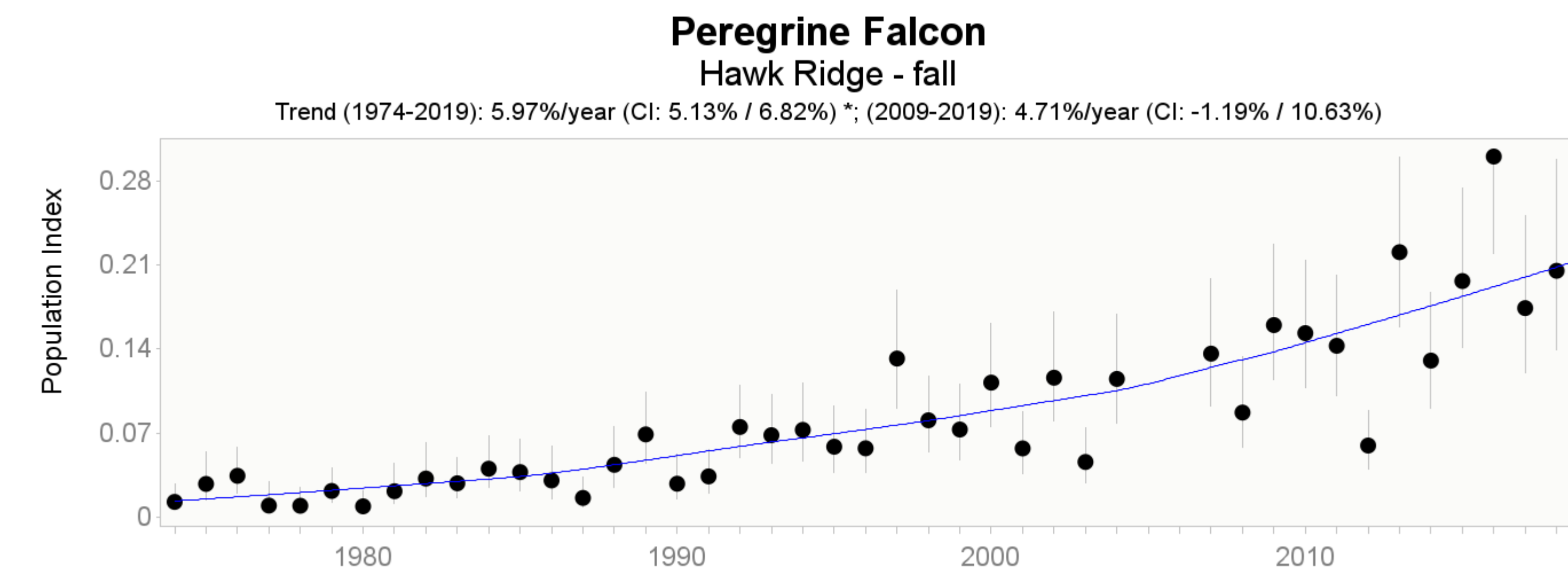
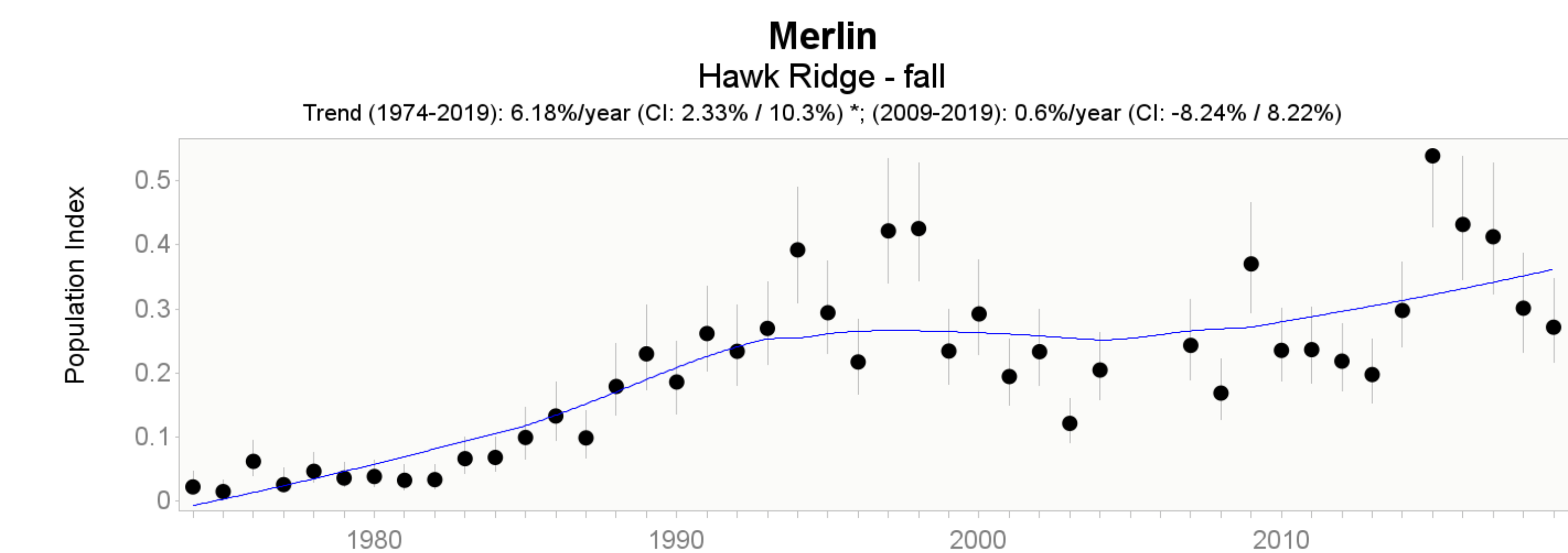
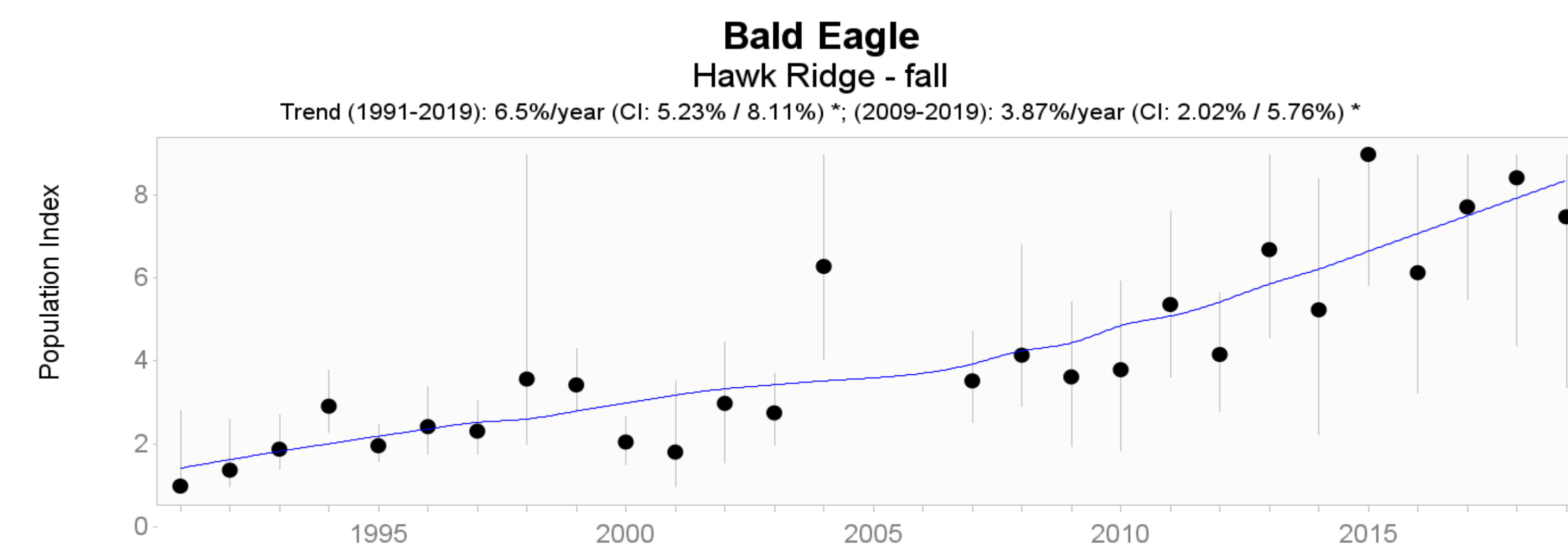
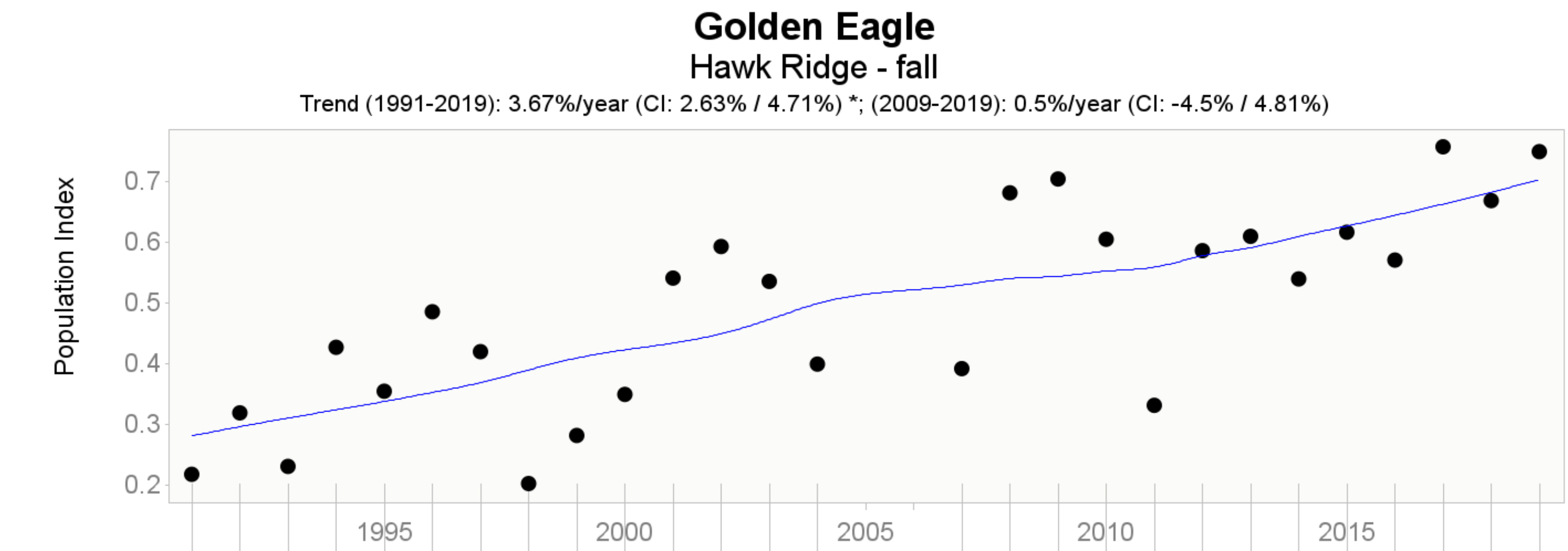
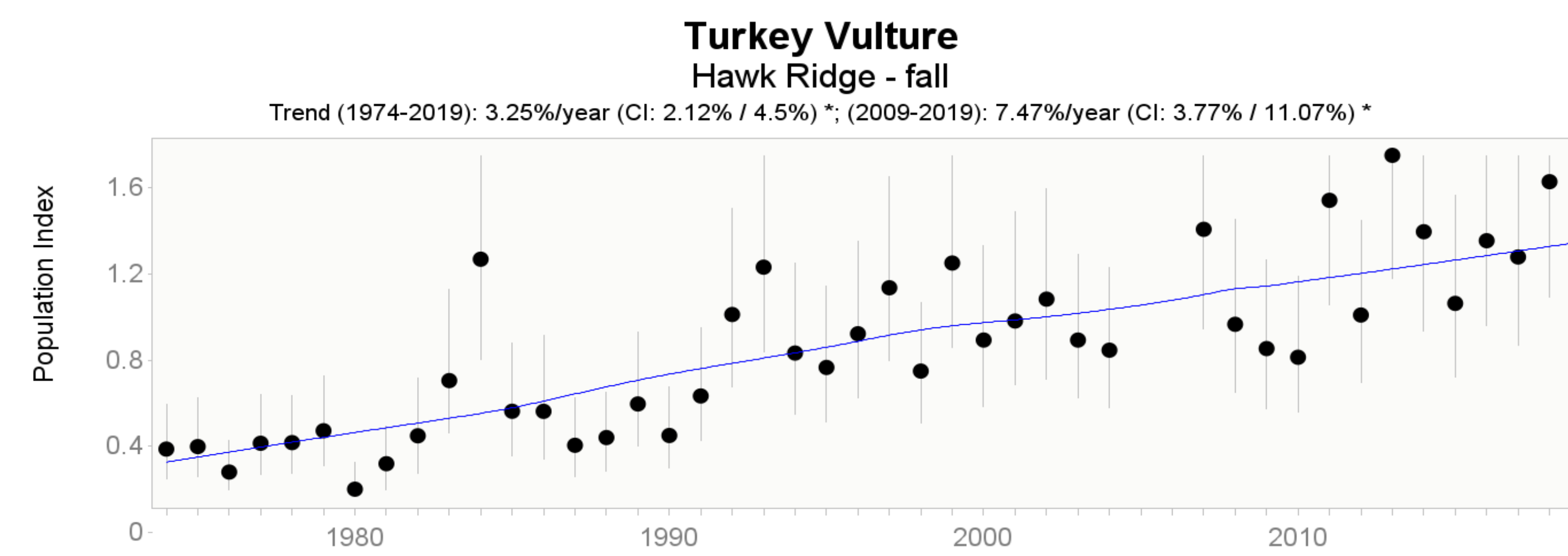
Gerald Niemi, Matthew Etterson, Lee Pfanmuller, Janet Green, and Alexis Grinde



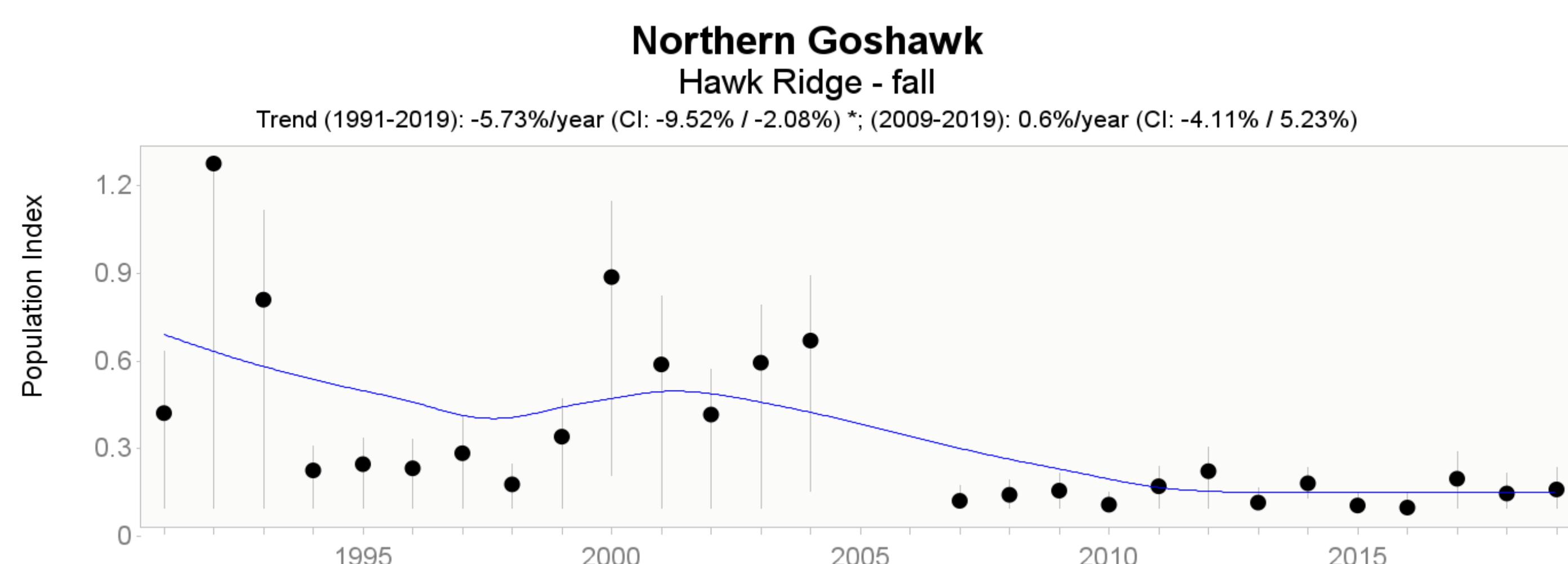
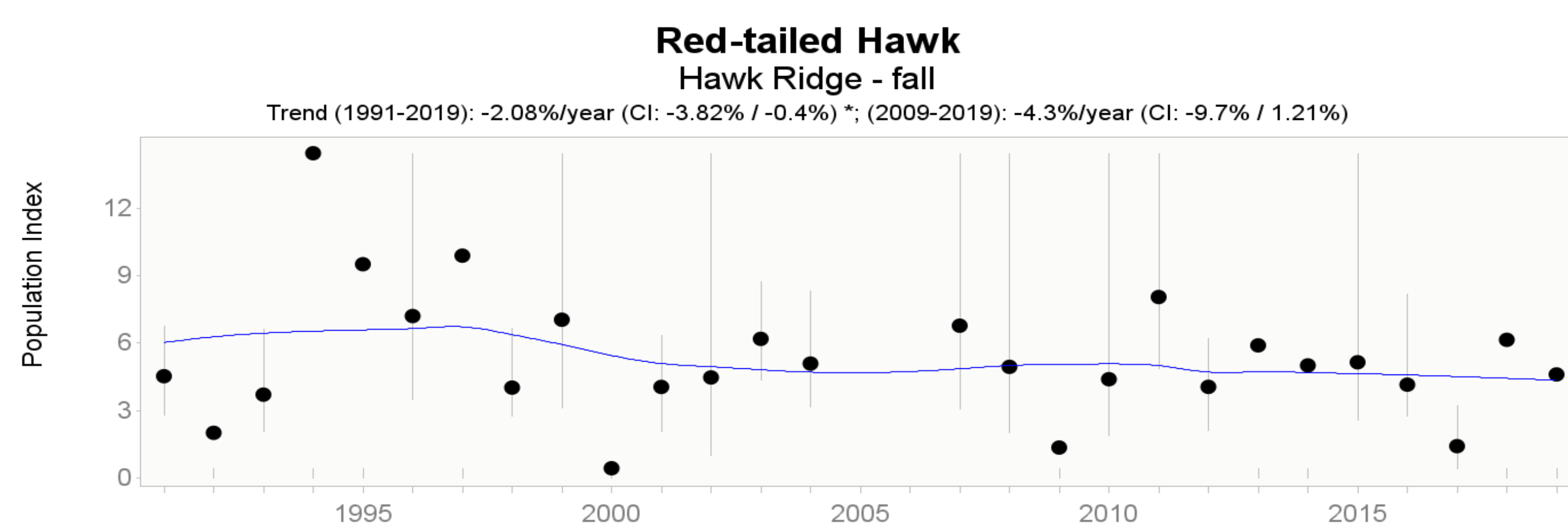
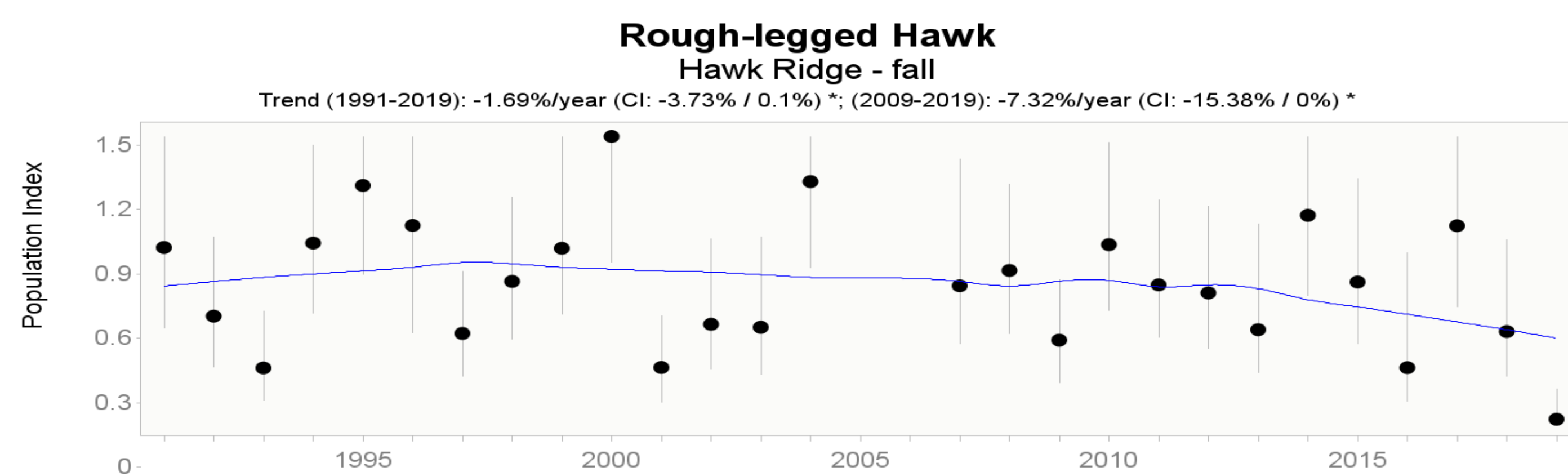
Abstract

Over 20 raptor species have been counted migrating at Hawk Ridge, but only 14 species are considered common enough during the fall migration to detect their population trend. Results from the Raptor Population Index¹ indicated that counts since 1974 or 1991 to the present have increased for the Turkey Vulture, Bald Eagle, Golden Eagle, Merlin, and Peregrine Falcon that reflect their increasing populations. In contrast, over that same period, counts of the Rough-legged Hawk, Red-tailed Hawk, and Northern Goshawk have declined, while American Kestrel has been declining since 2009. Ospreys counts have increased from the early 1970s through the 1990s, but they have declined since the early 2000s. No perceptible change in counts have been observed for the Northern Harrier, Sharp-shinned Hawk, Cooper's Hawk, and Broad-winged Hawk; however, migration counts for these species have been highly variable over the past fifty years. Causes for the population increases or decreases are complex, but are likely associated with banning the use of DDT in 1972, habitat changes on both breeding and wintering ranges, climate change, reduction in human persecution, and other species-specific factors.

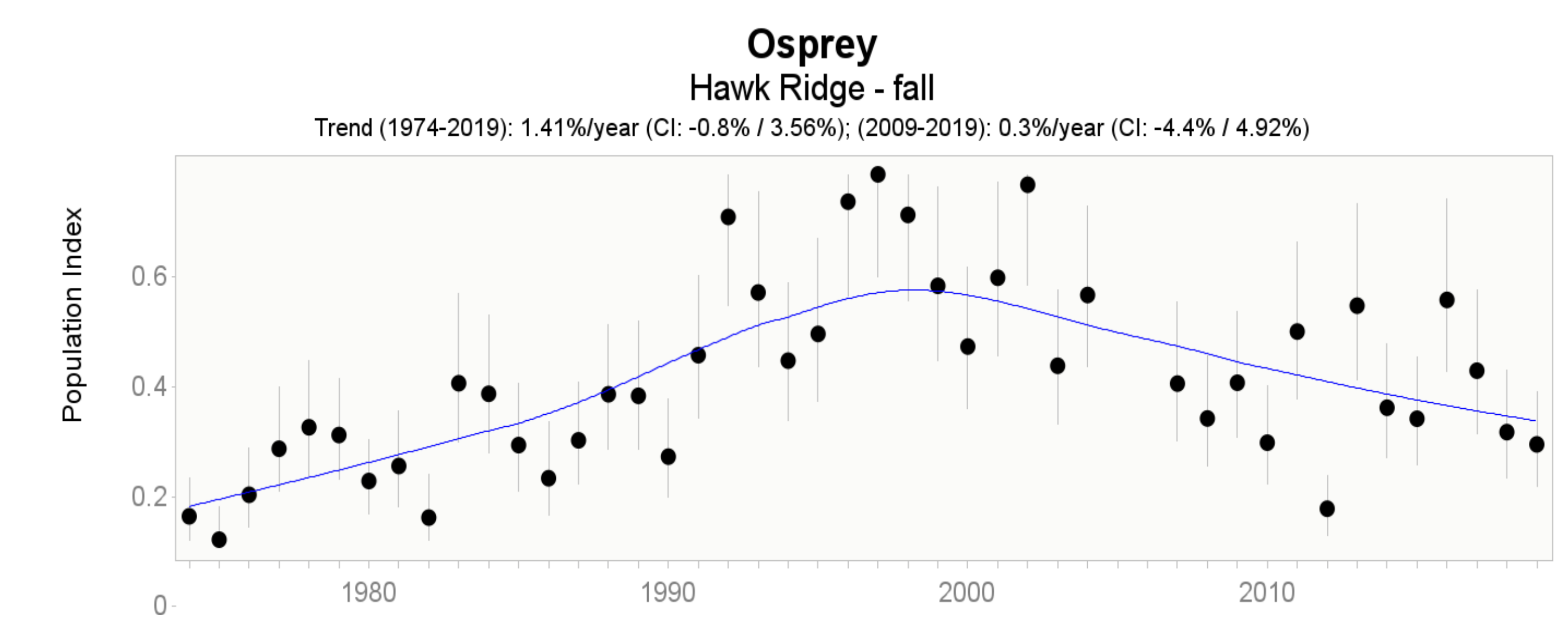
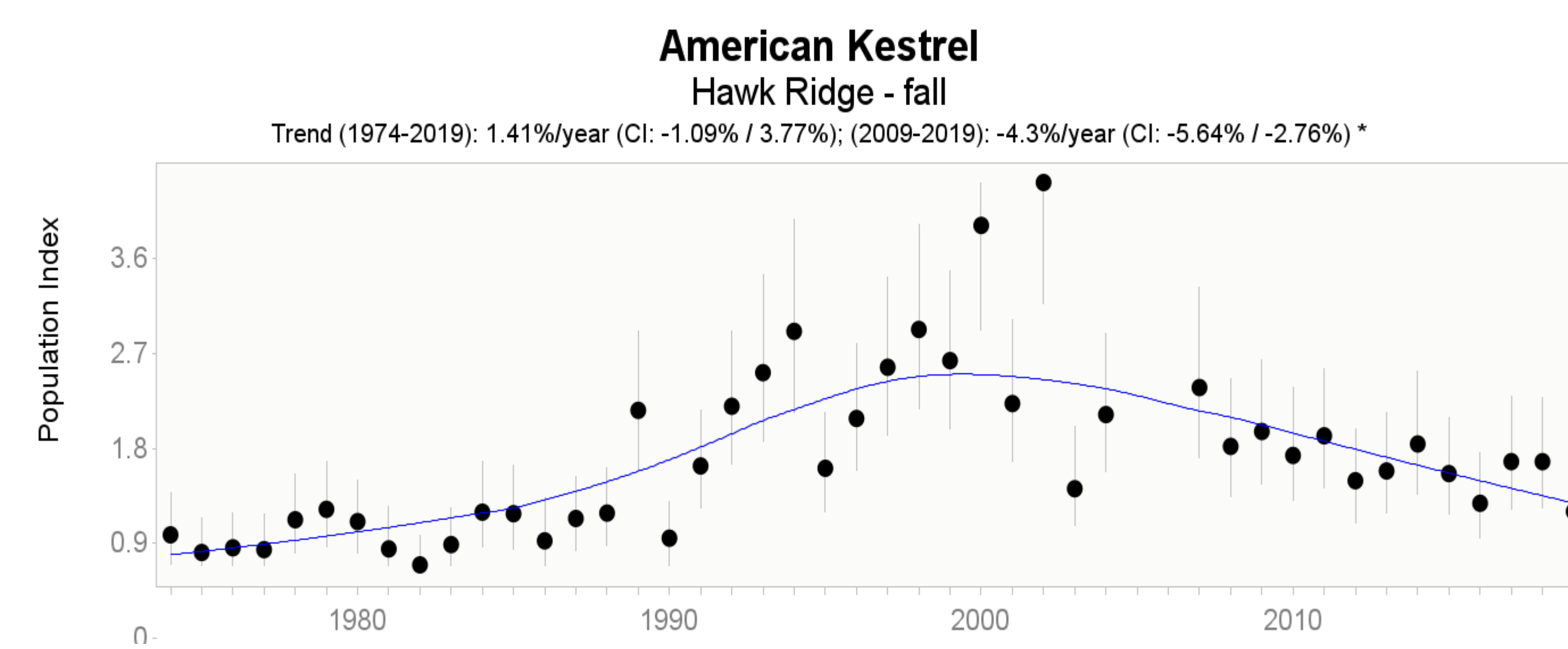
5 Species of Raptors Increasing



3 Species of Raptors Are Declining



2 Recently Declining Species



No Significant Count Changes for Northern Harrier, Sharp-shinned Hawk, Cooper's Hawk, and Broad-winged Hawk from 1974