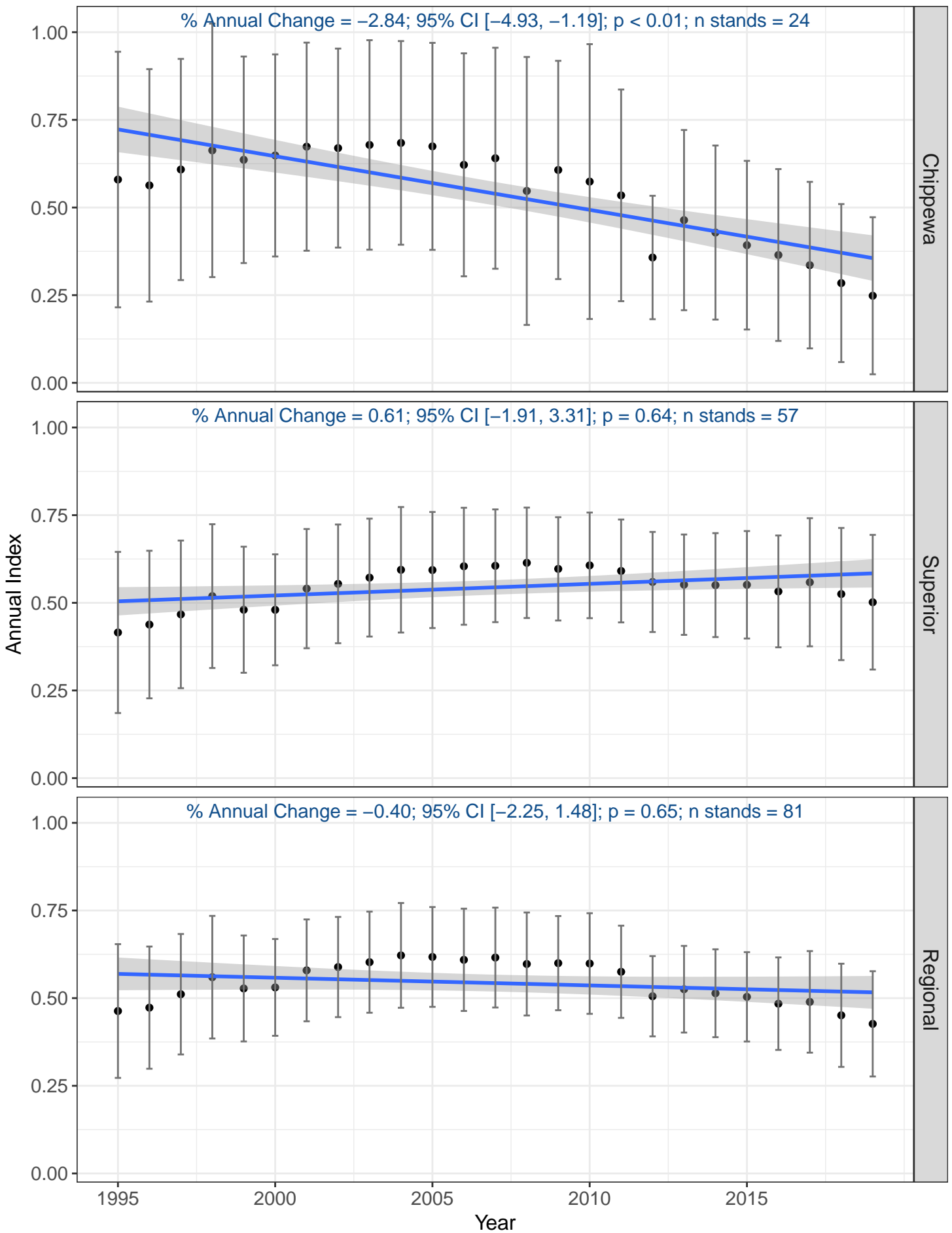


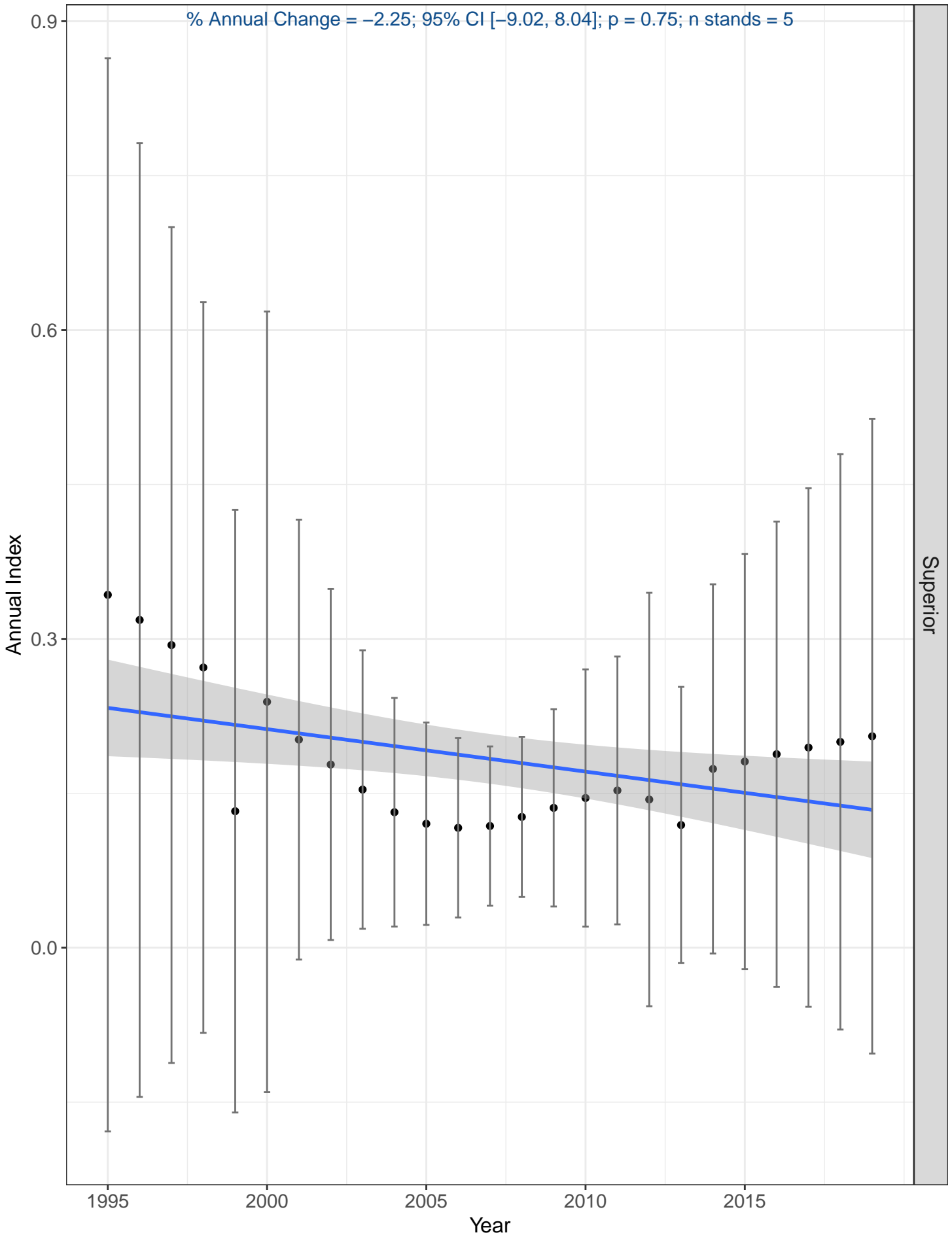
## **Appendix A**

Population trend graphs of calculated annual index for individual species within the Chippewa and Superior NFs, and regionally over the 25-year time period (1995–2019) of the study.

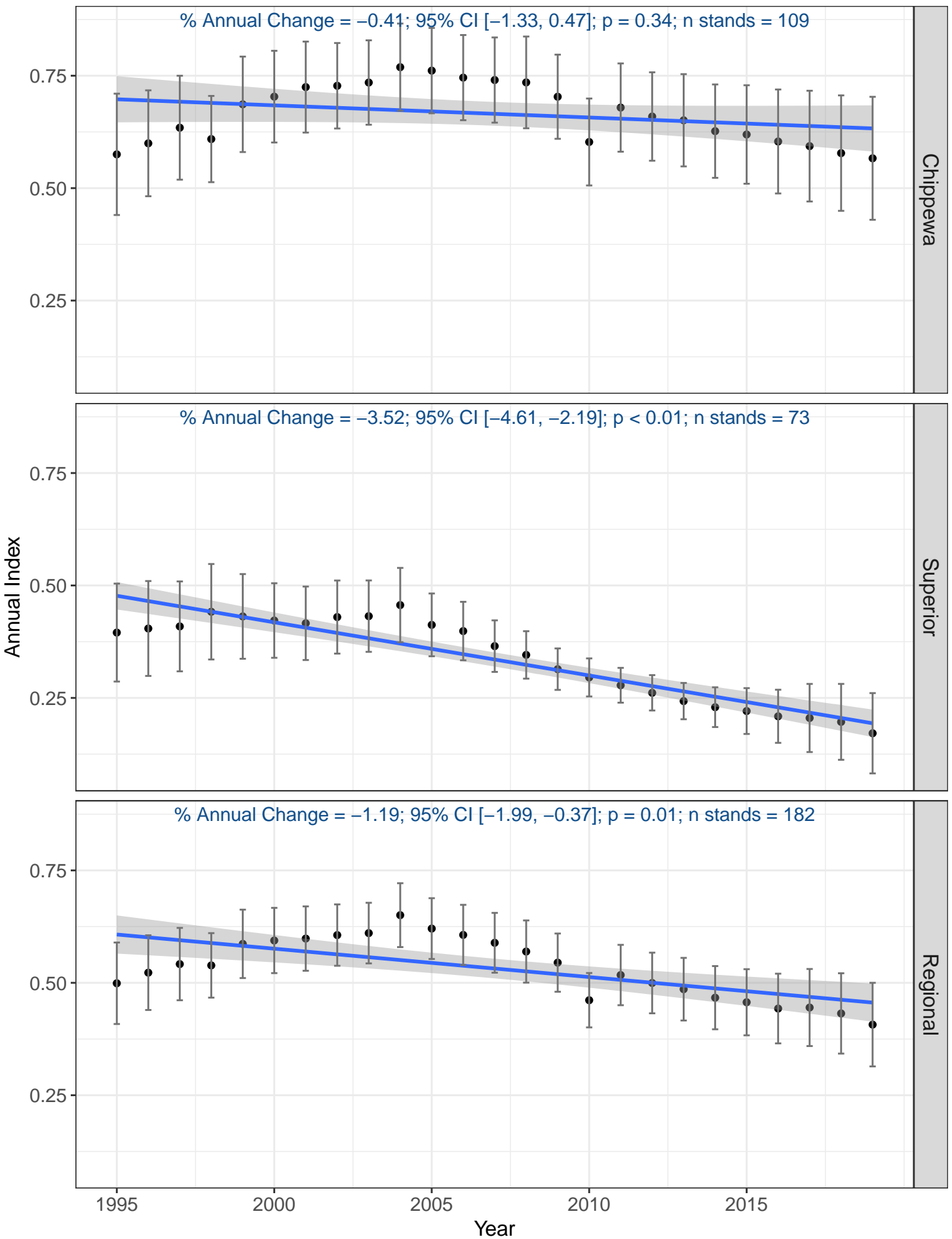
# Alder Flycatcher



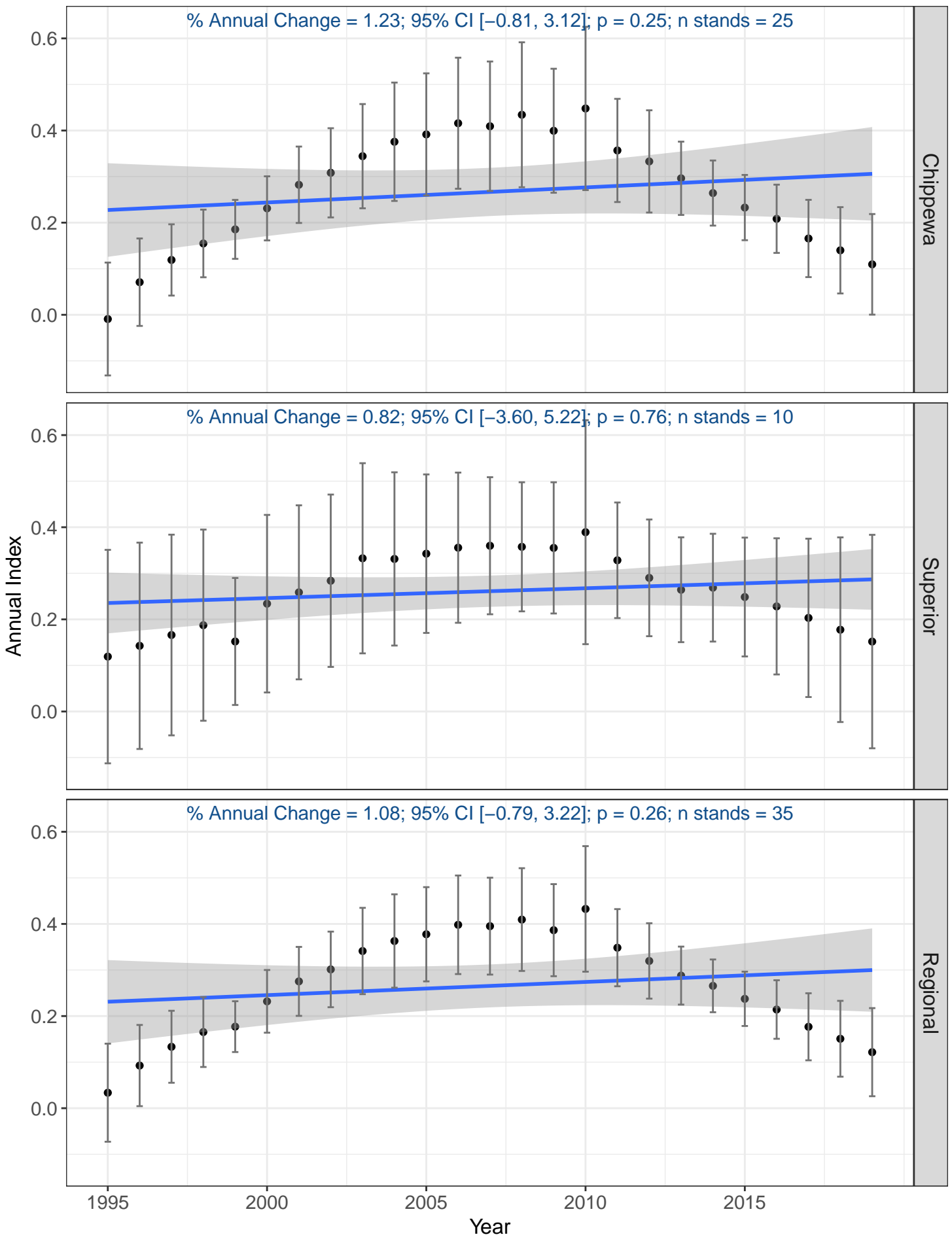
# American Bittern



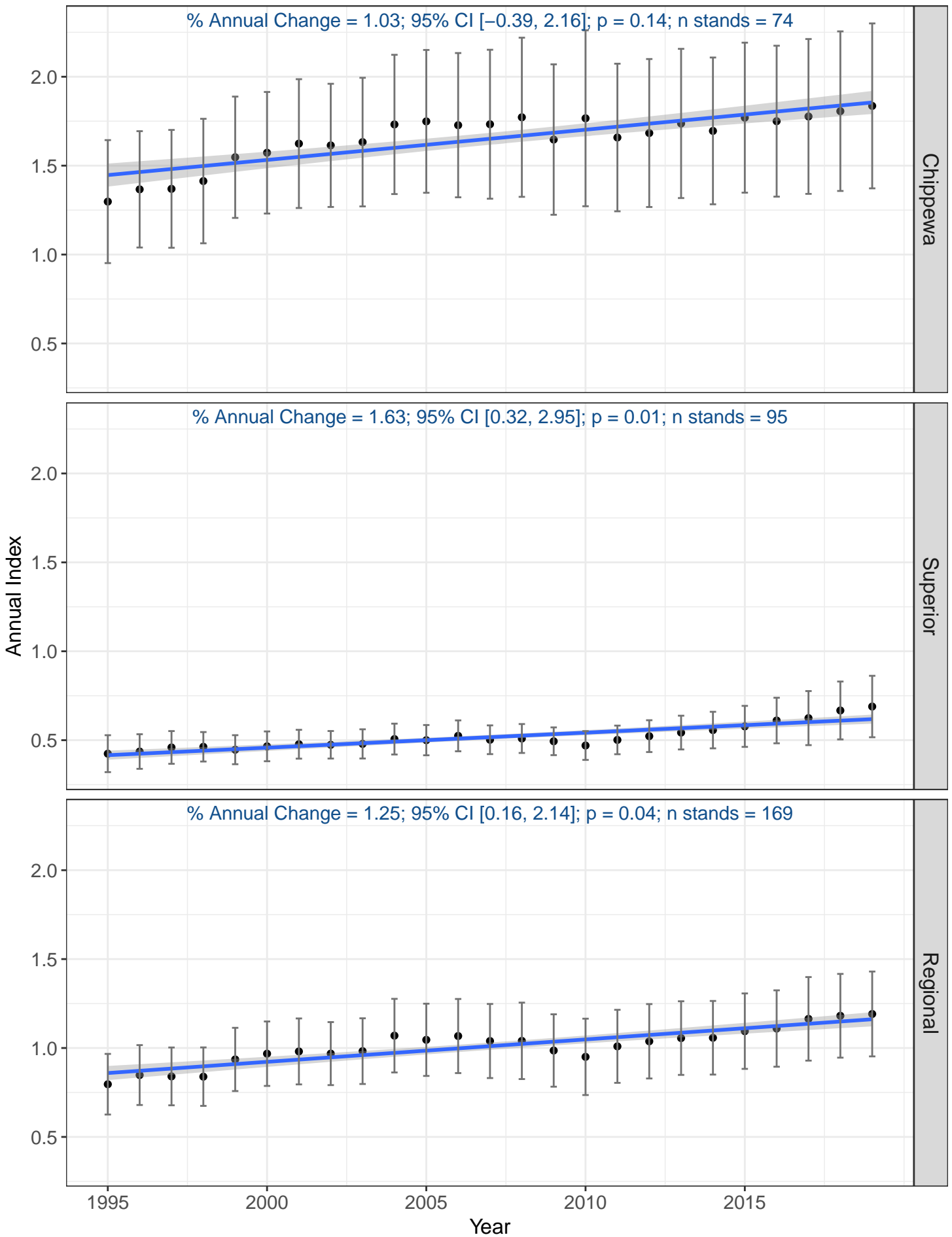
# American Crow



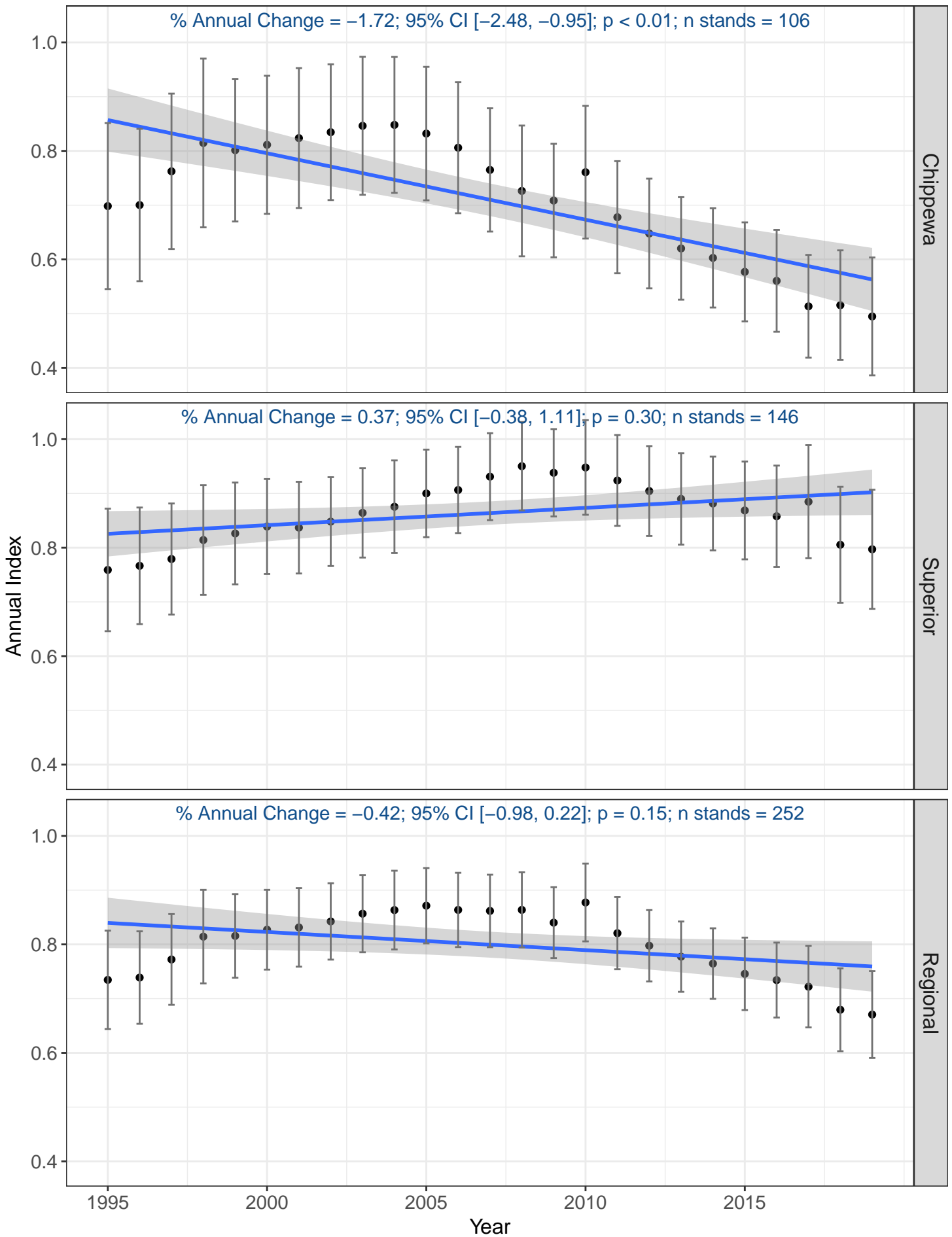
# American Goldfinch



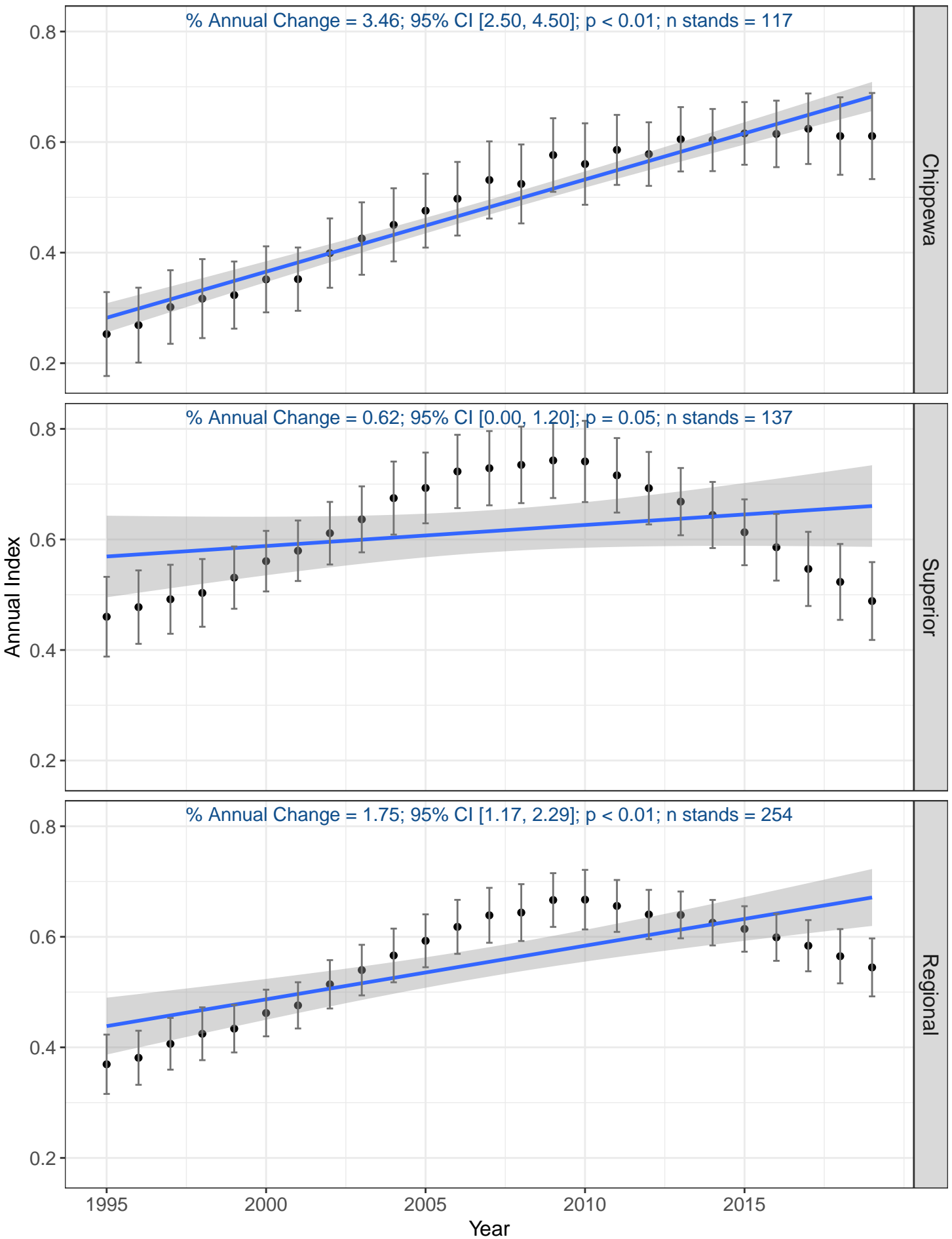
# American Redstart



# American Robin

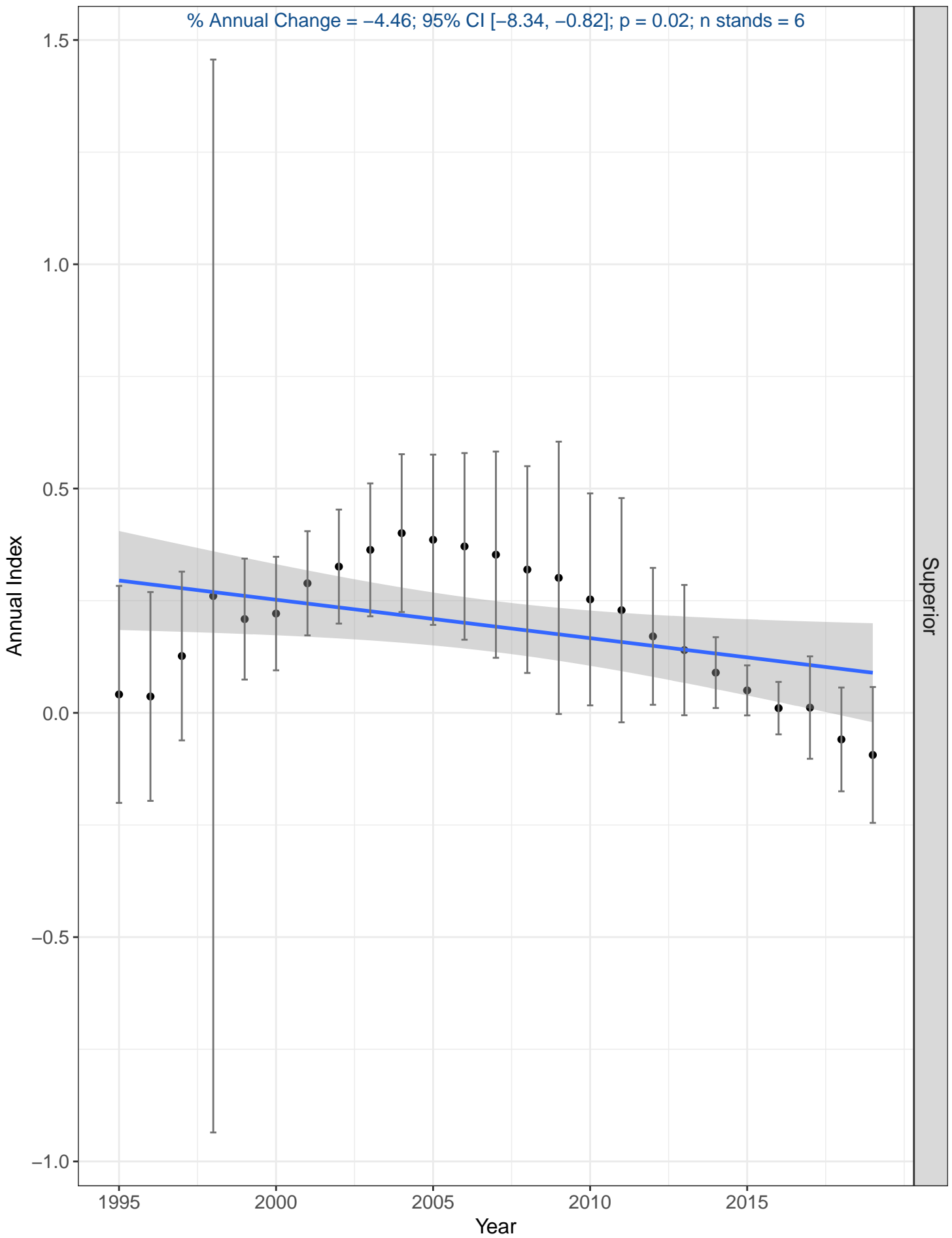


# Black-and-white Warbler

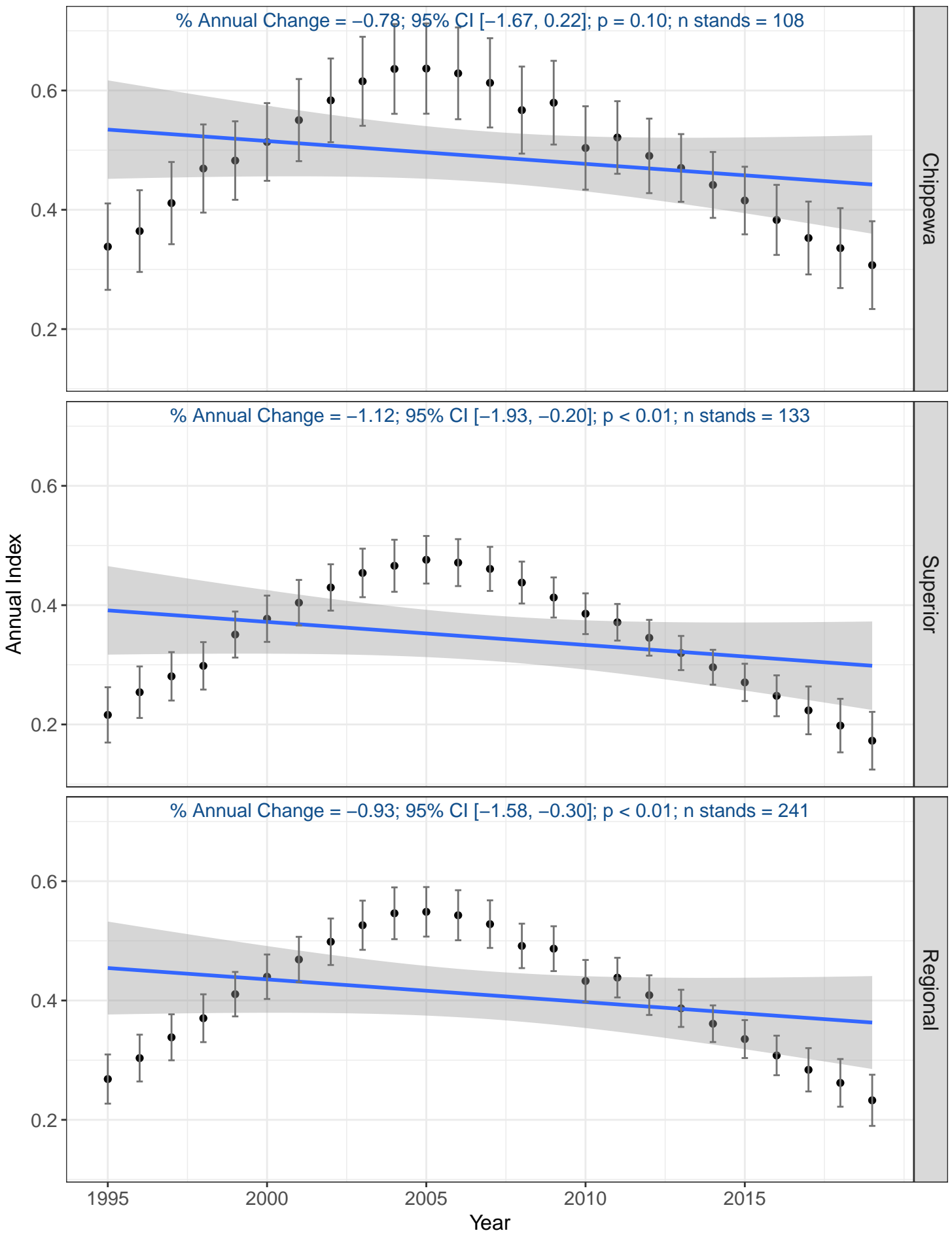


# Black-billed Cuckoo

% Annual Change = -4.46; 95% CI [-8.34, -0.82]; p = 0.02; n stands = 6

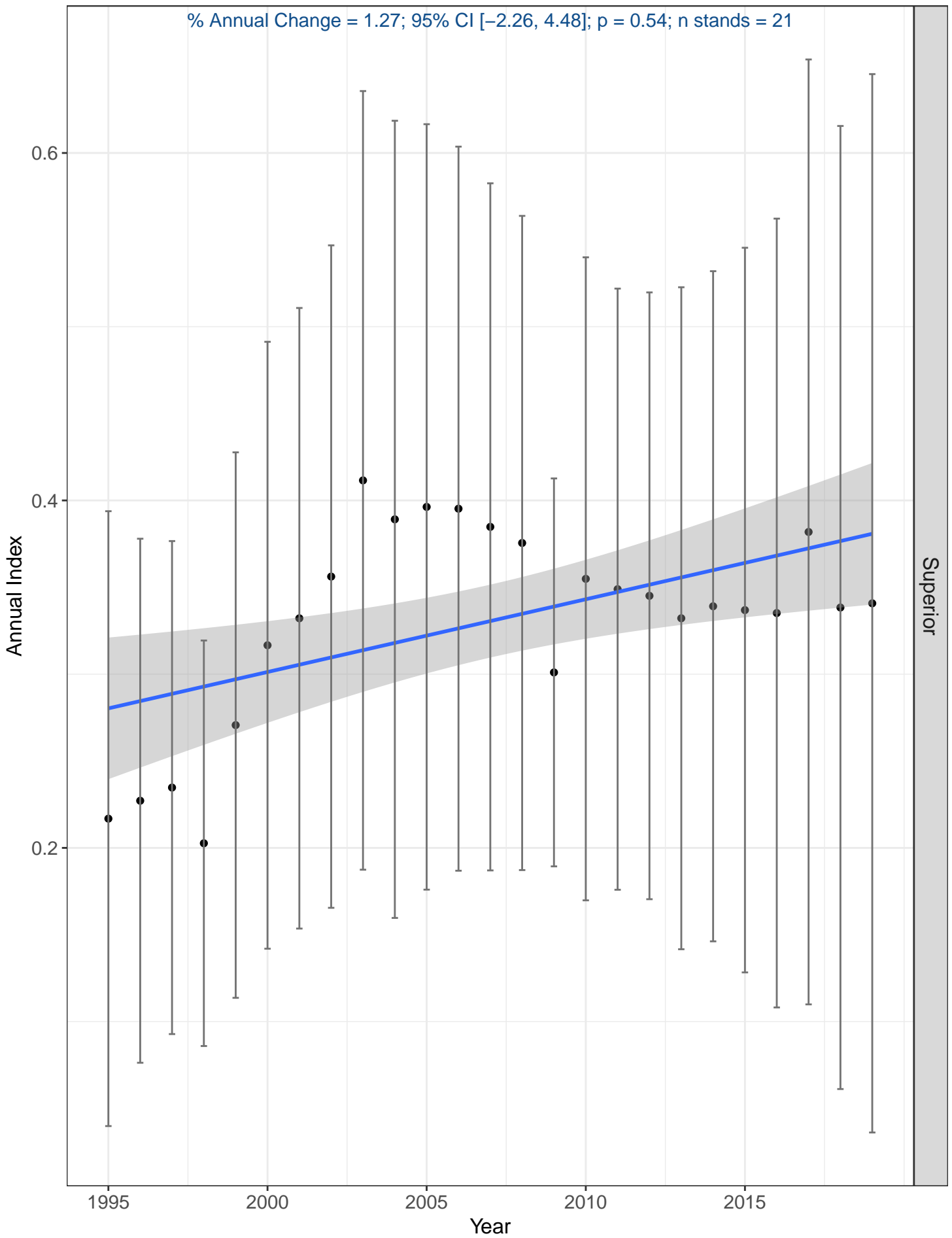


# Black-capped Chickadee

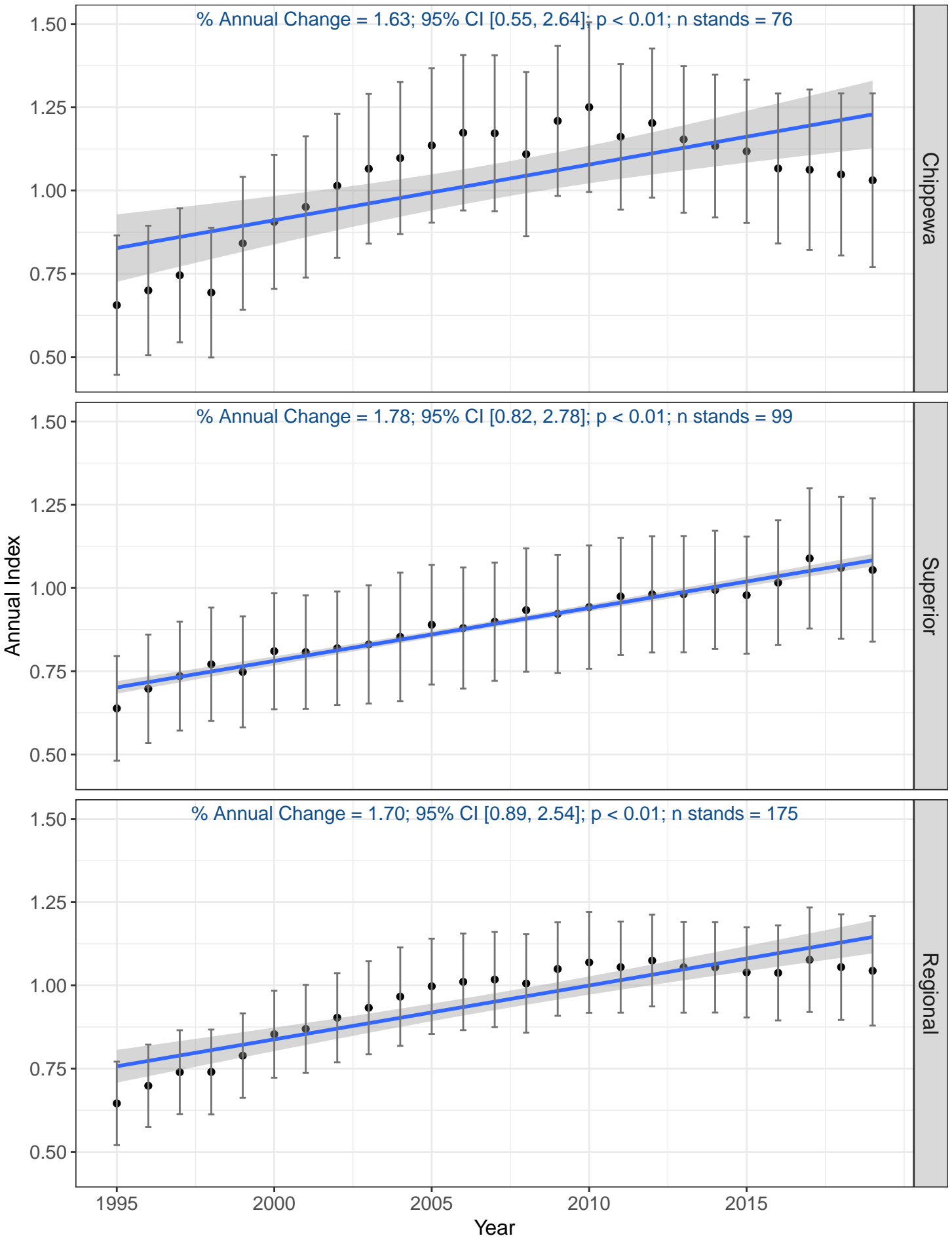


# Black-throated Blue Warbler

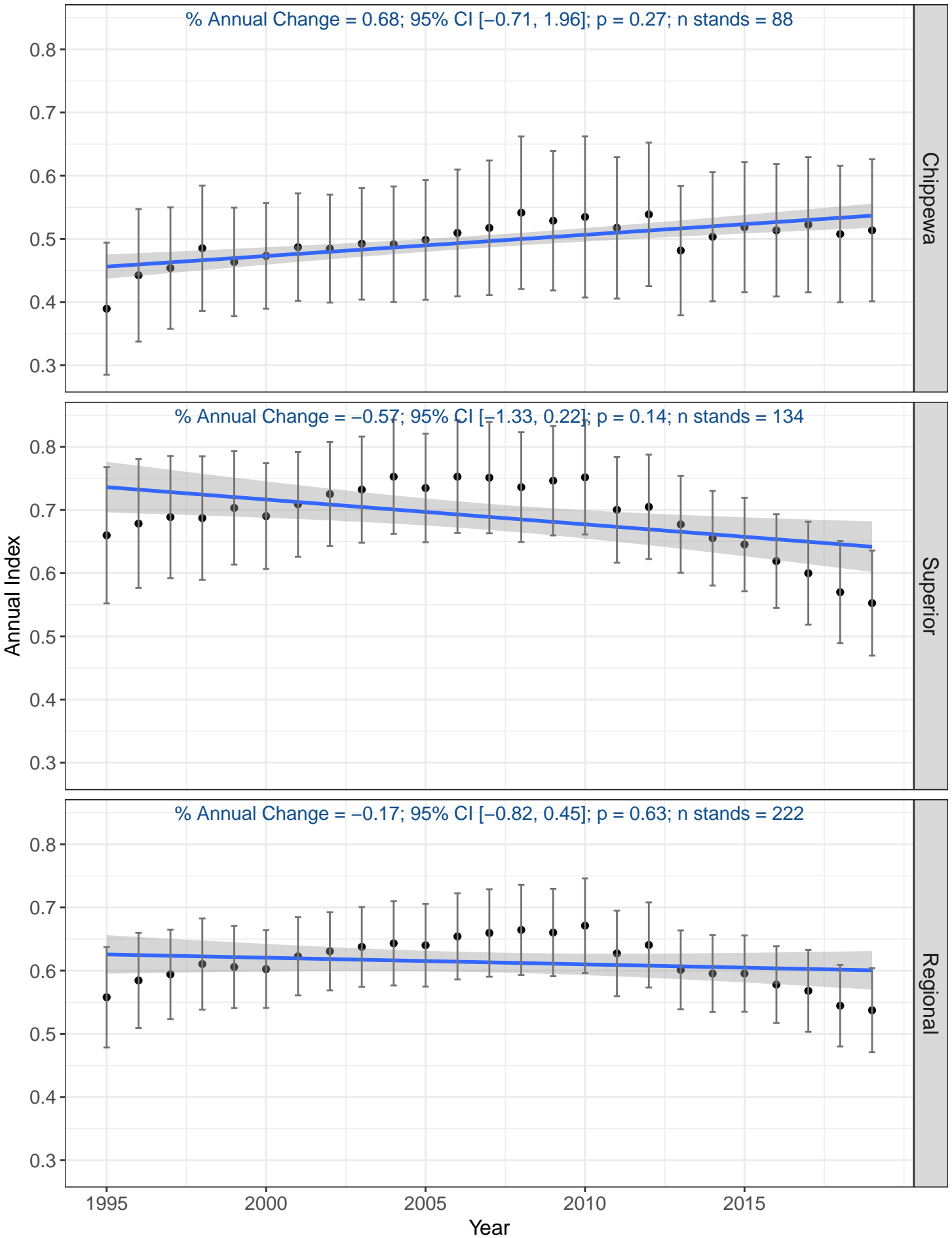
% Annual Change = 1.27; 95% CI [-2.26, 4.48]; p = 0.54; n stands = 21



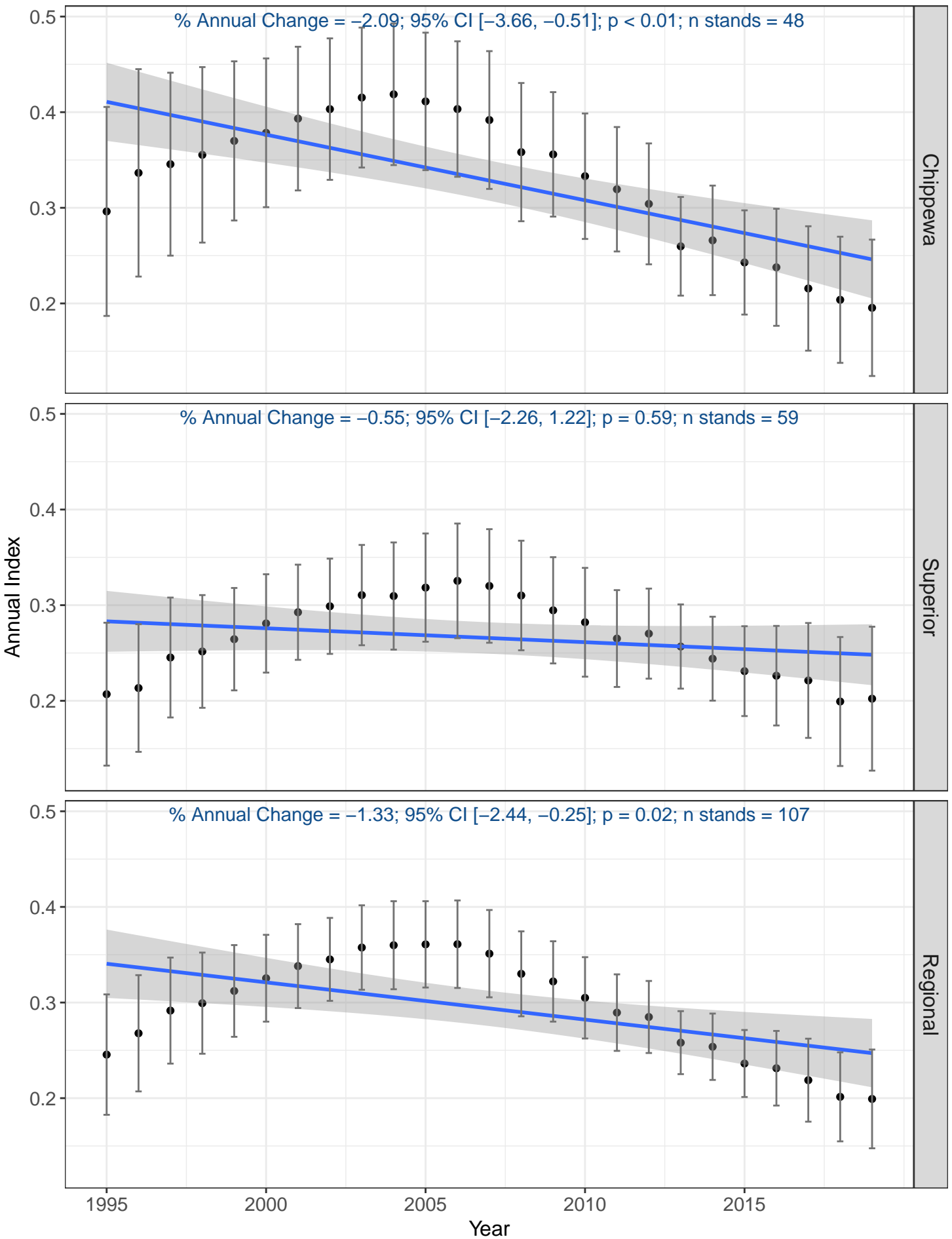
# Black-throated Green Warbler



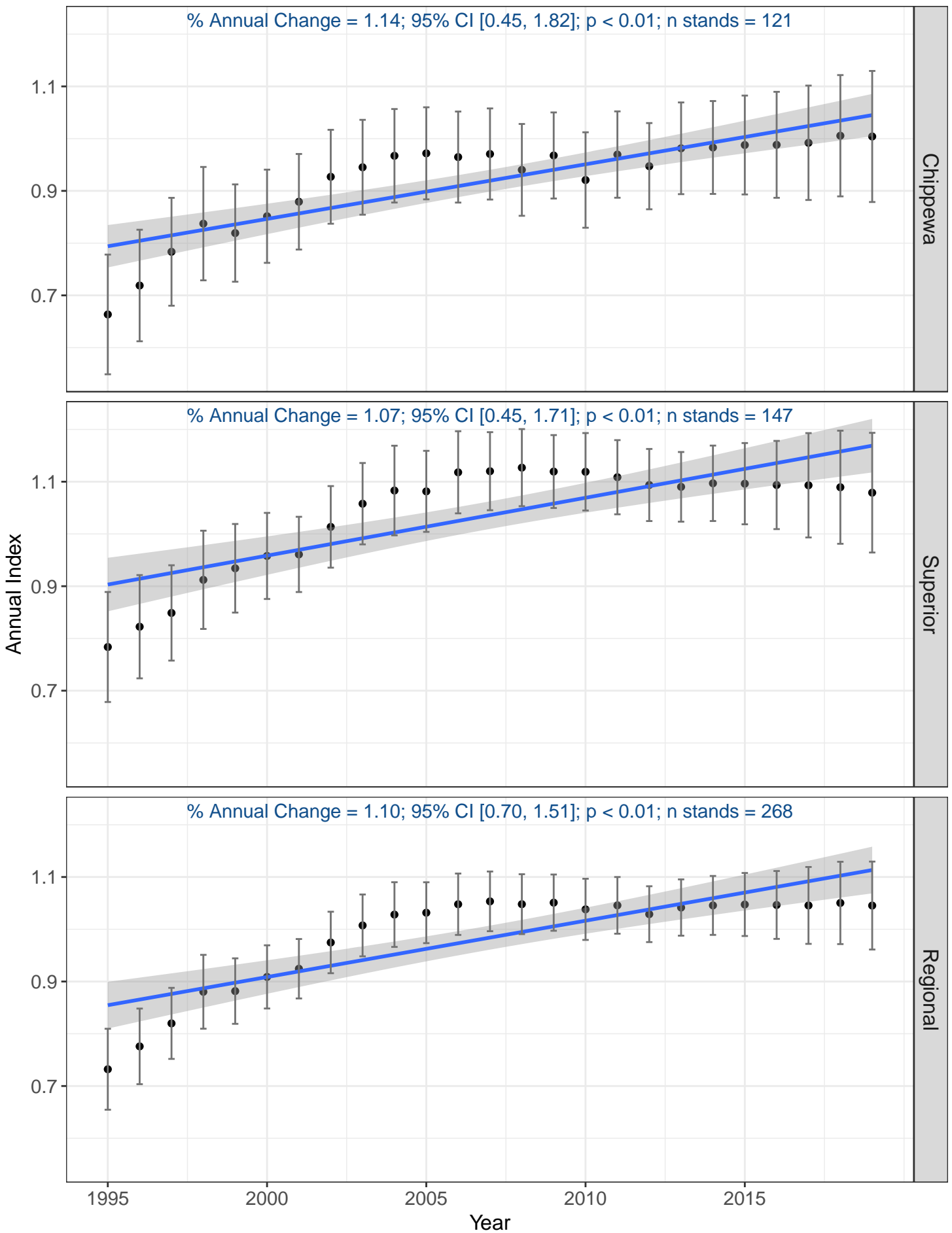
# Blackburnian Warbler



# Blue-headed Vireo

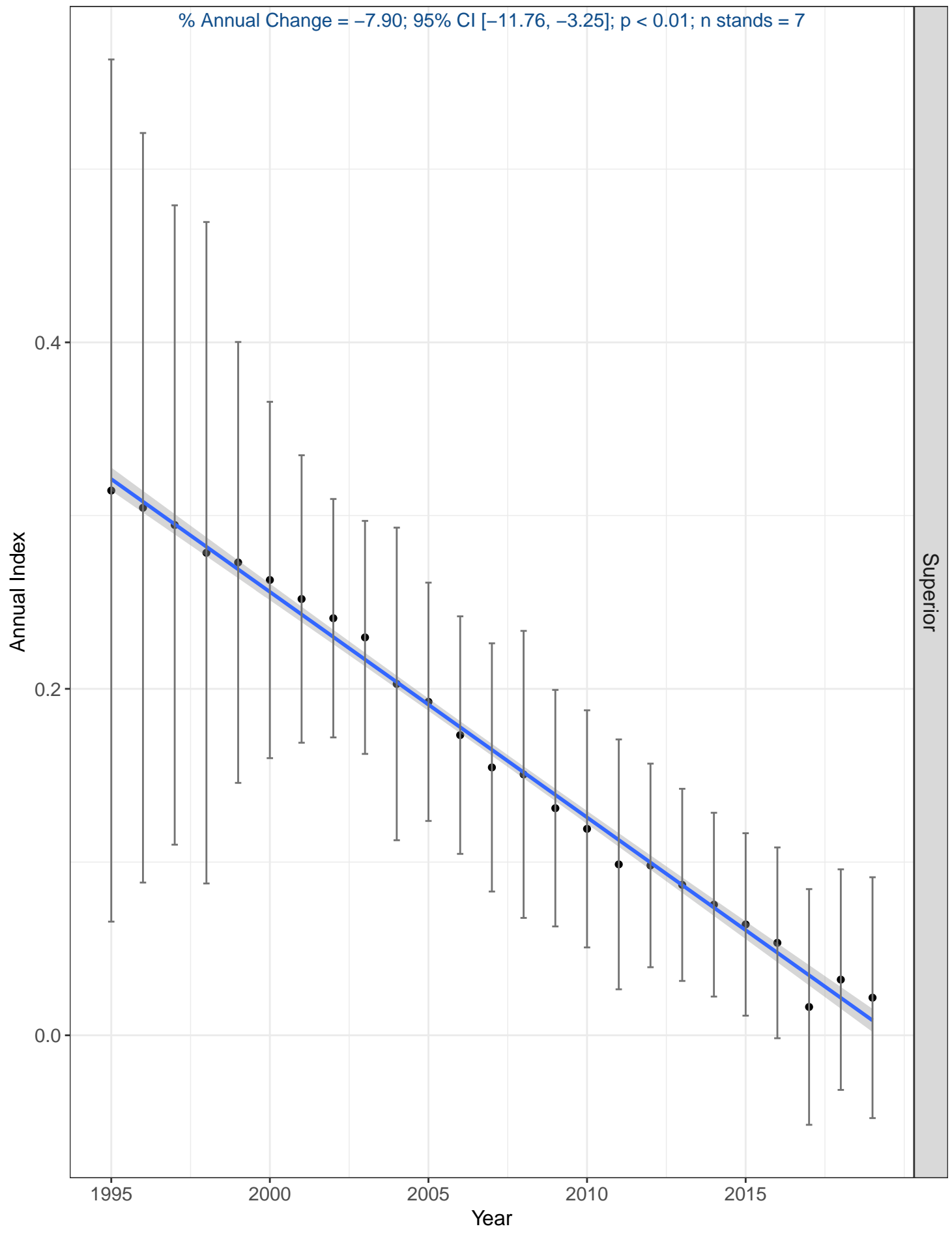


# Blue Jay



# Broad-winged Hawk

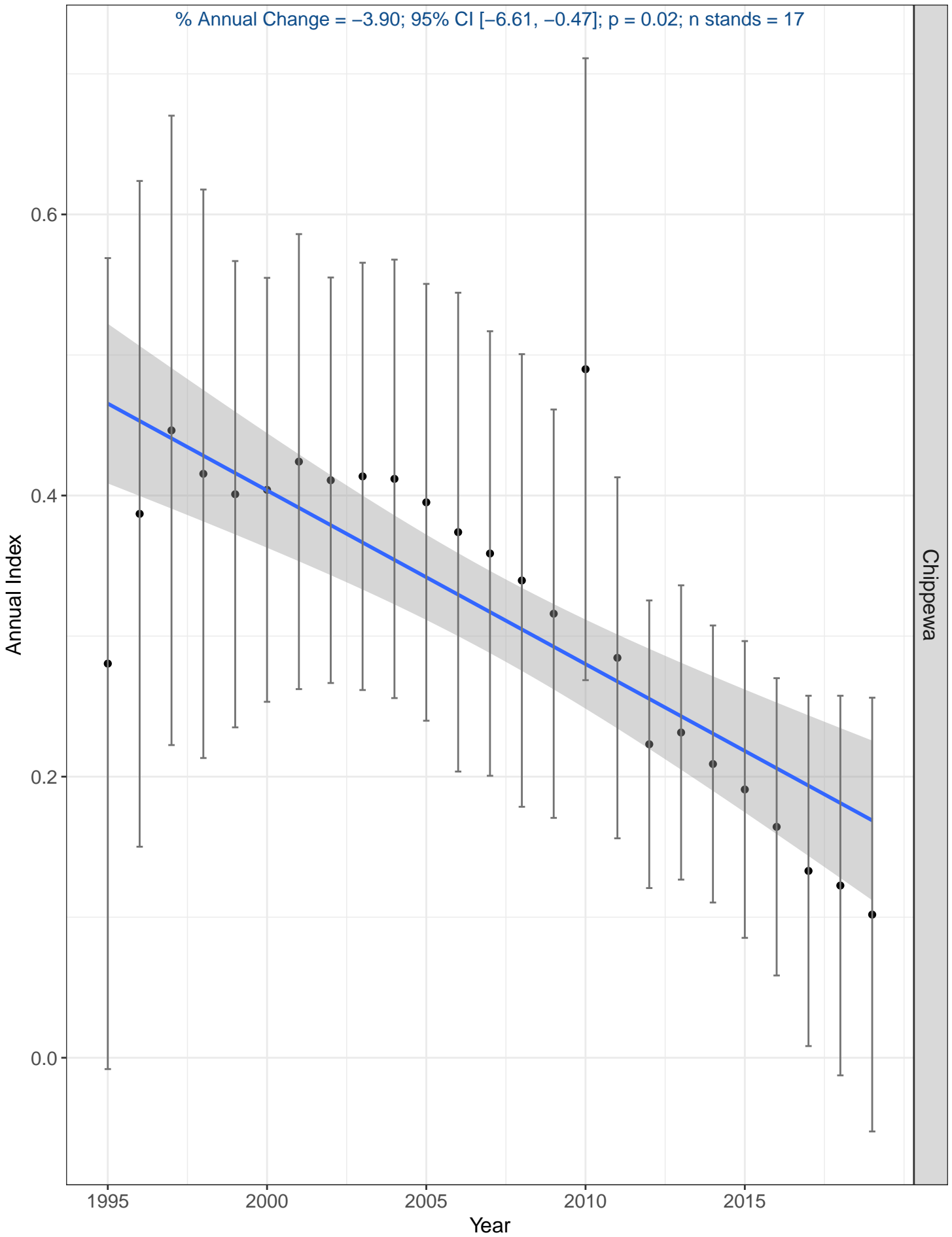
% Annual Change = -7.90; 95% CI [-11.76, -3.25]; p < 0.01; n stands = 7



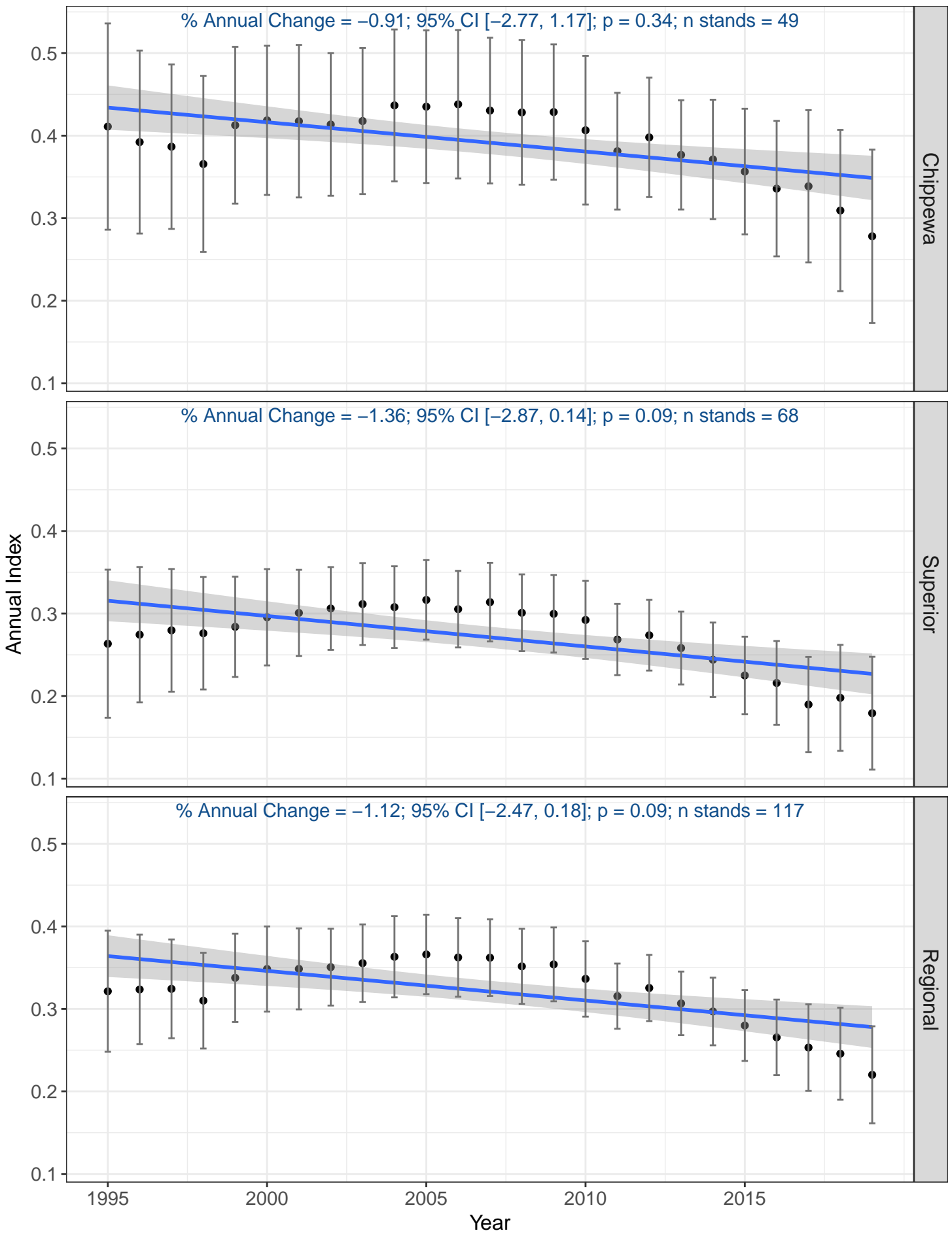
Superior

# Brown-headed Cowbird

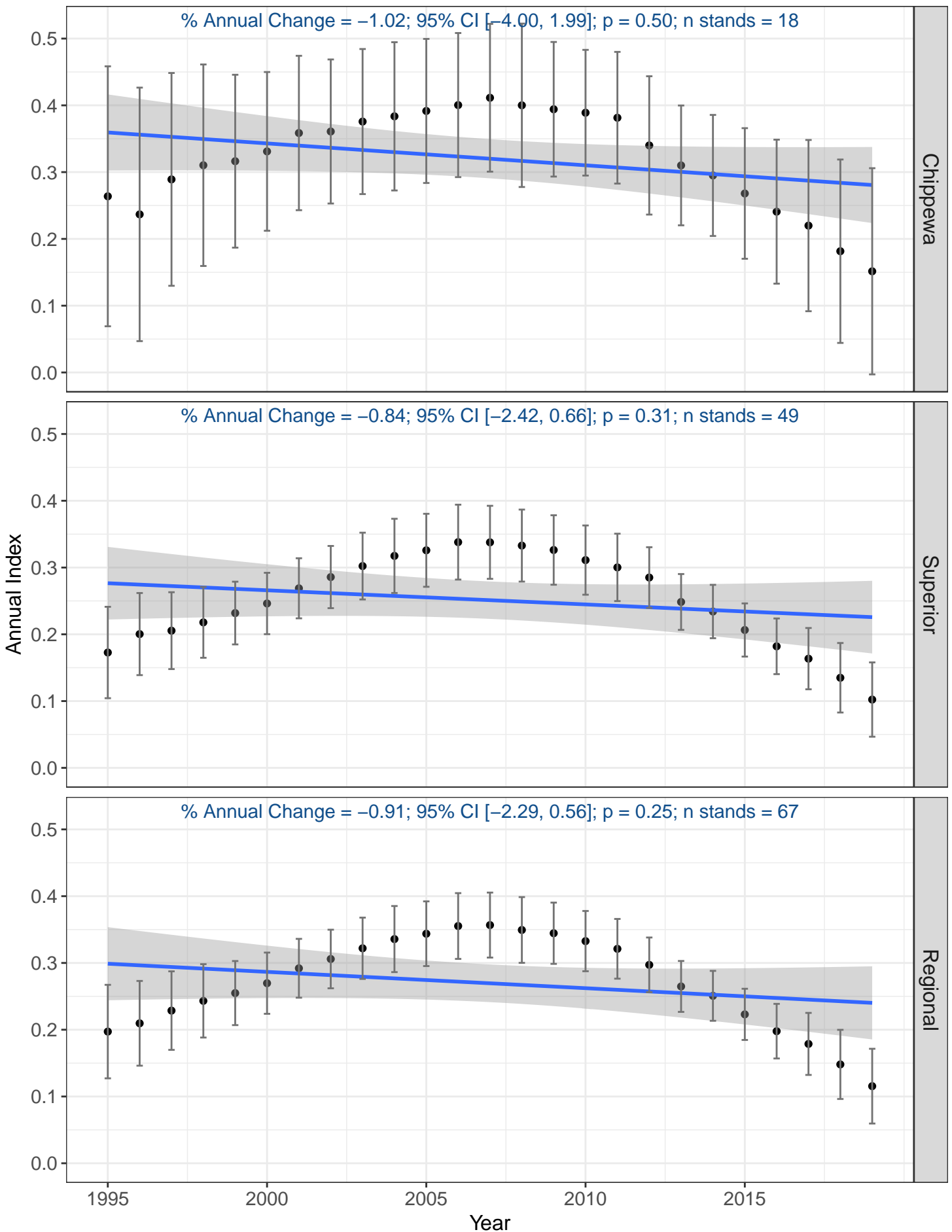
% Annual Change =  $-3.90$ ; 95% CI  $[-6.61, -0.47]$ ;  $p = 0.02$ ; n stands = 17



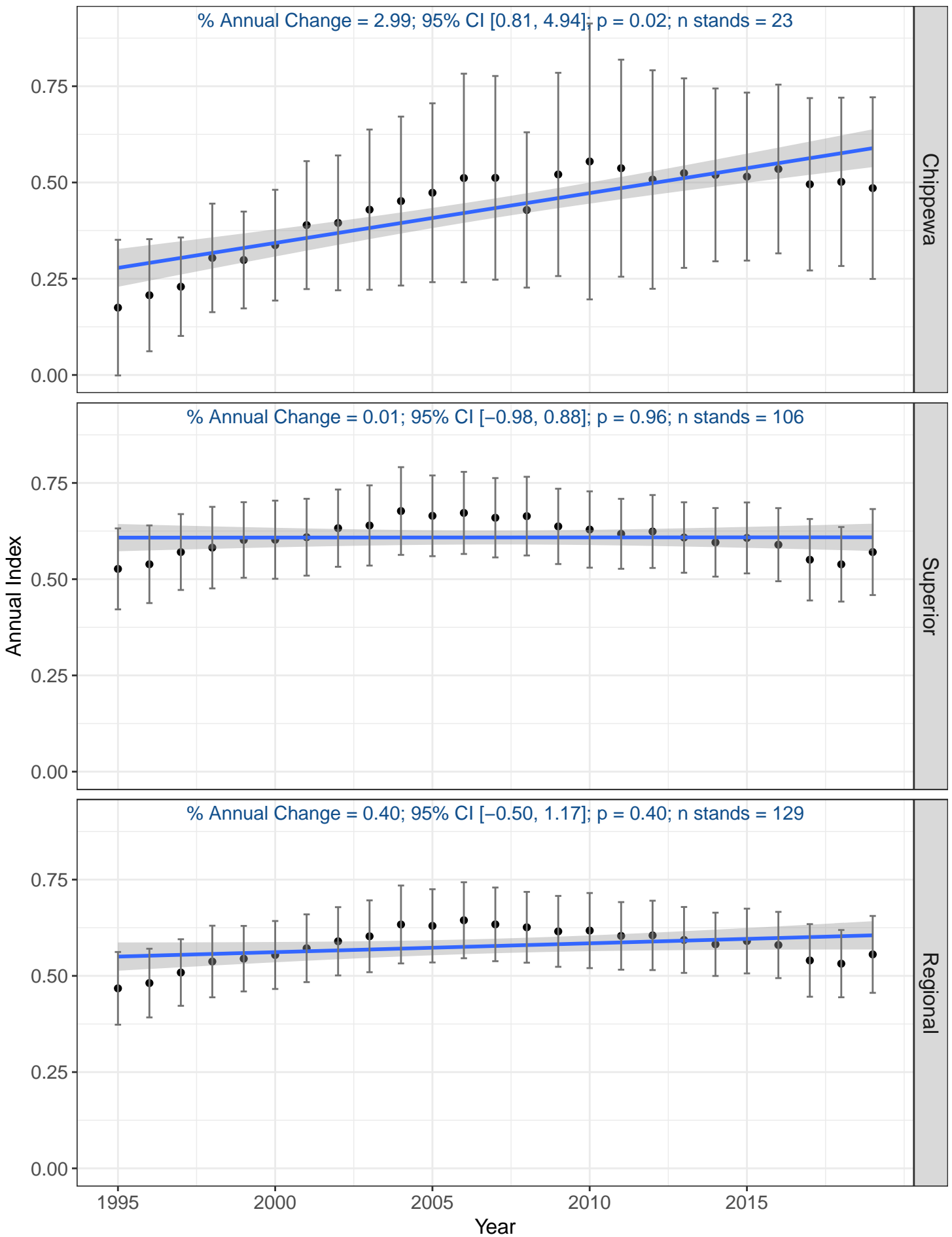
# Brown Creeper



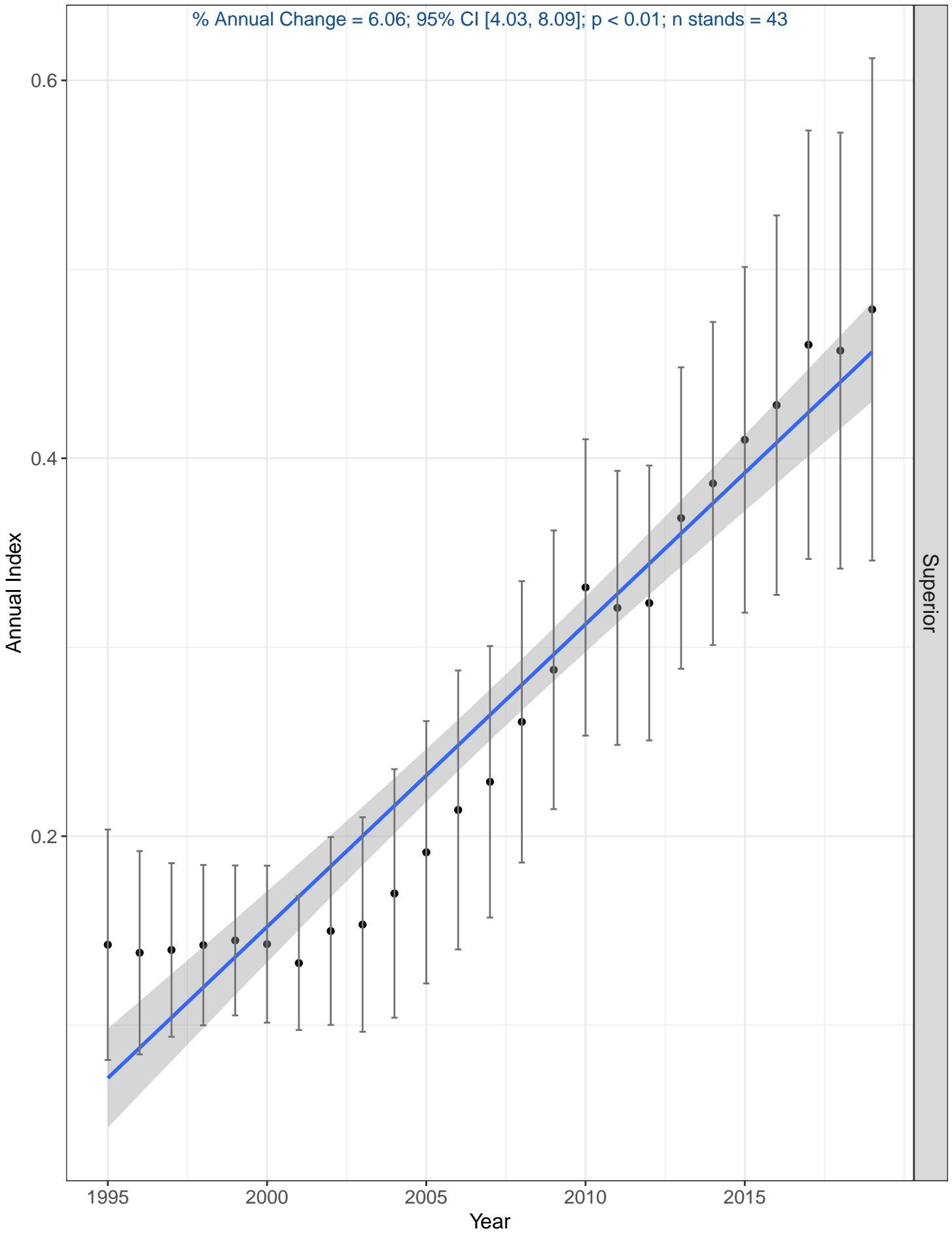
# Canada Jay



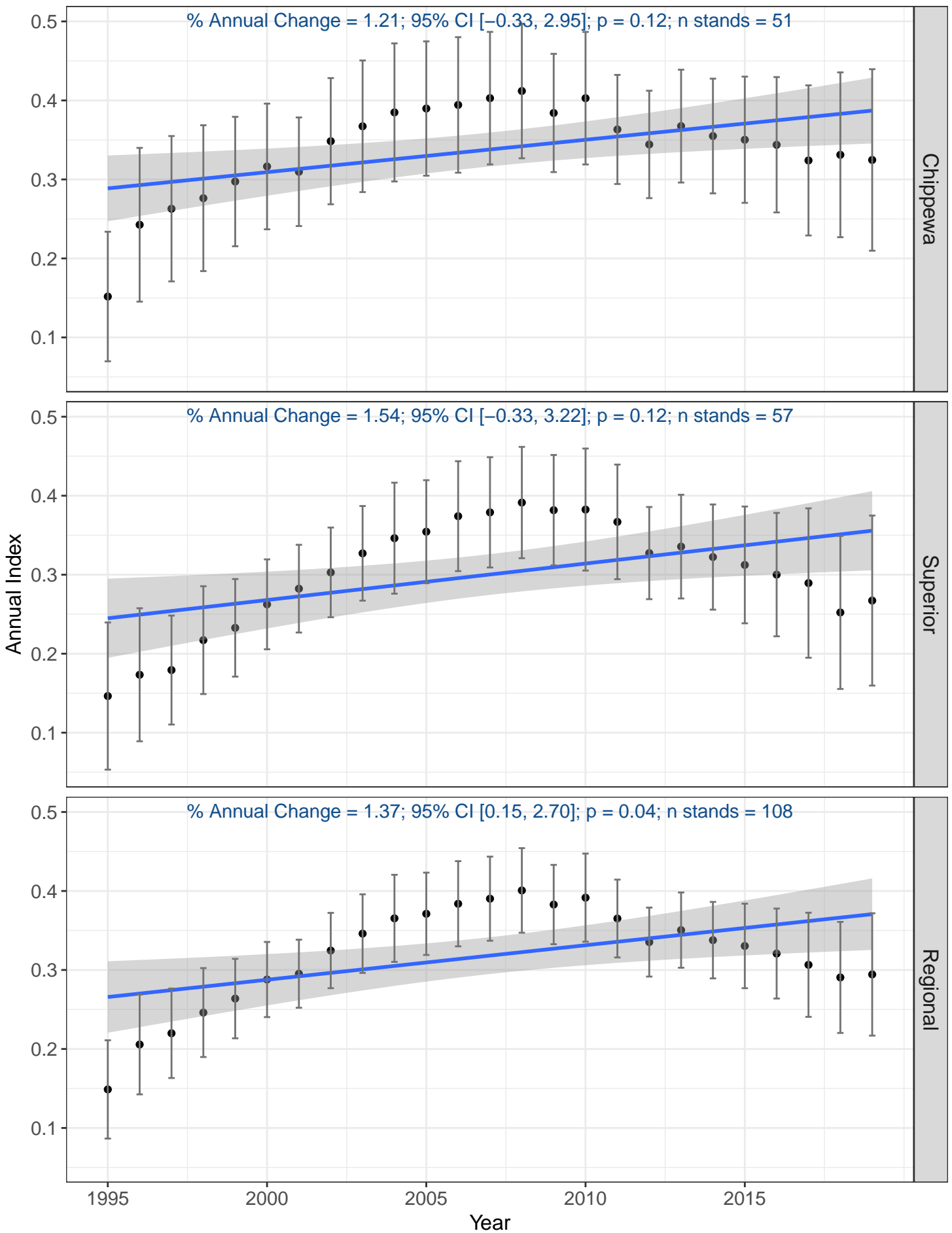
# Canada Warbler



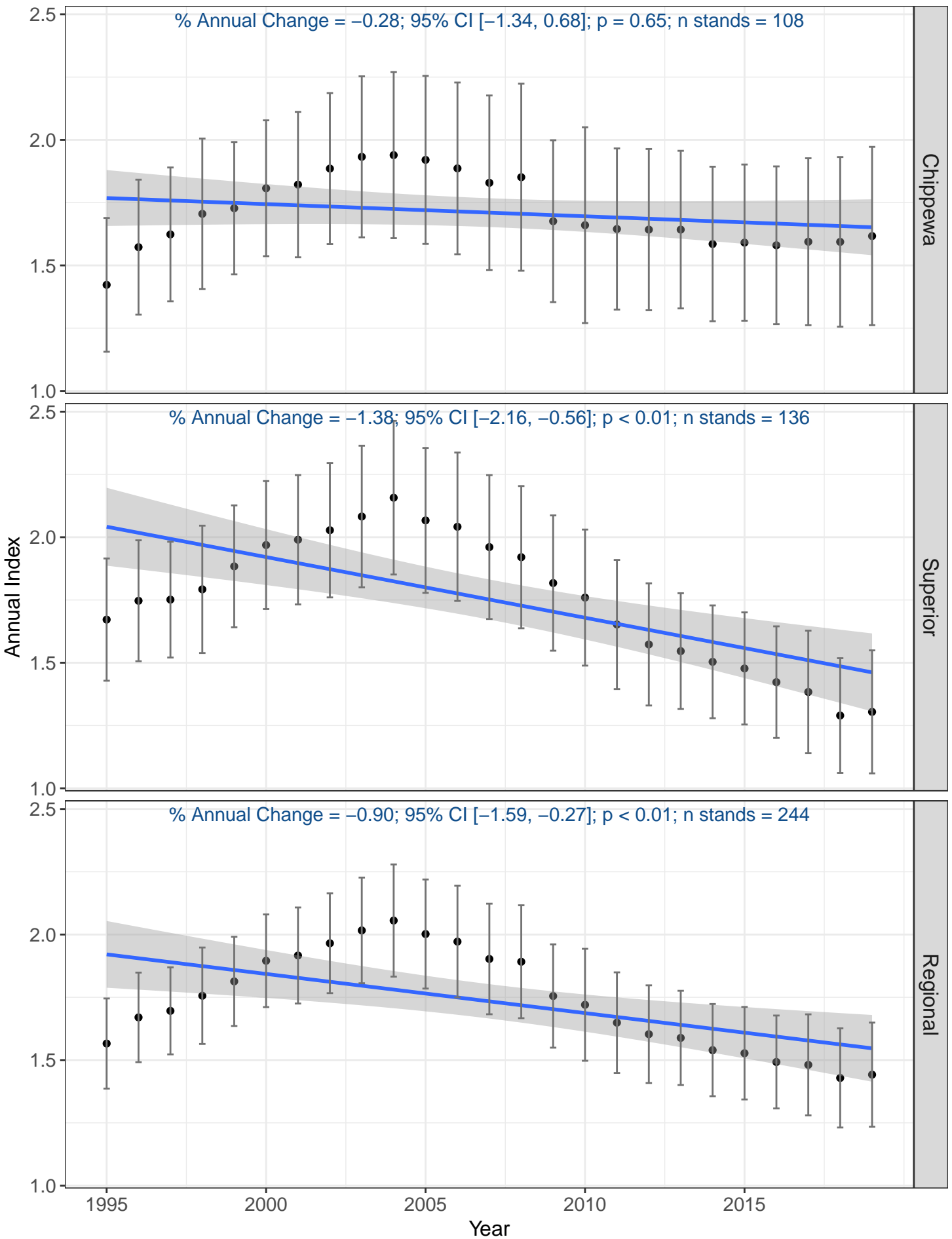
# Cape May Warbler



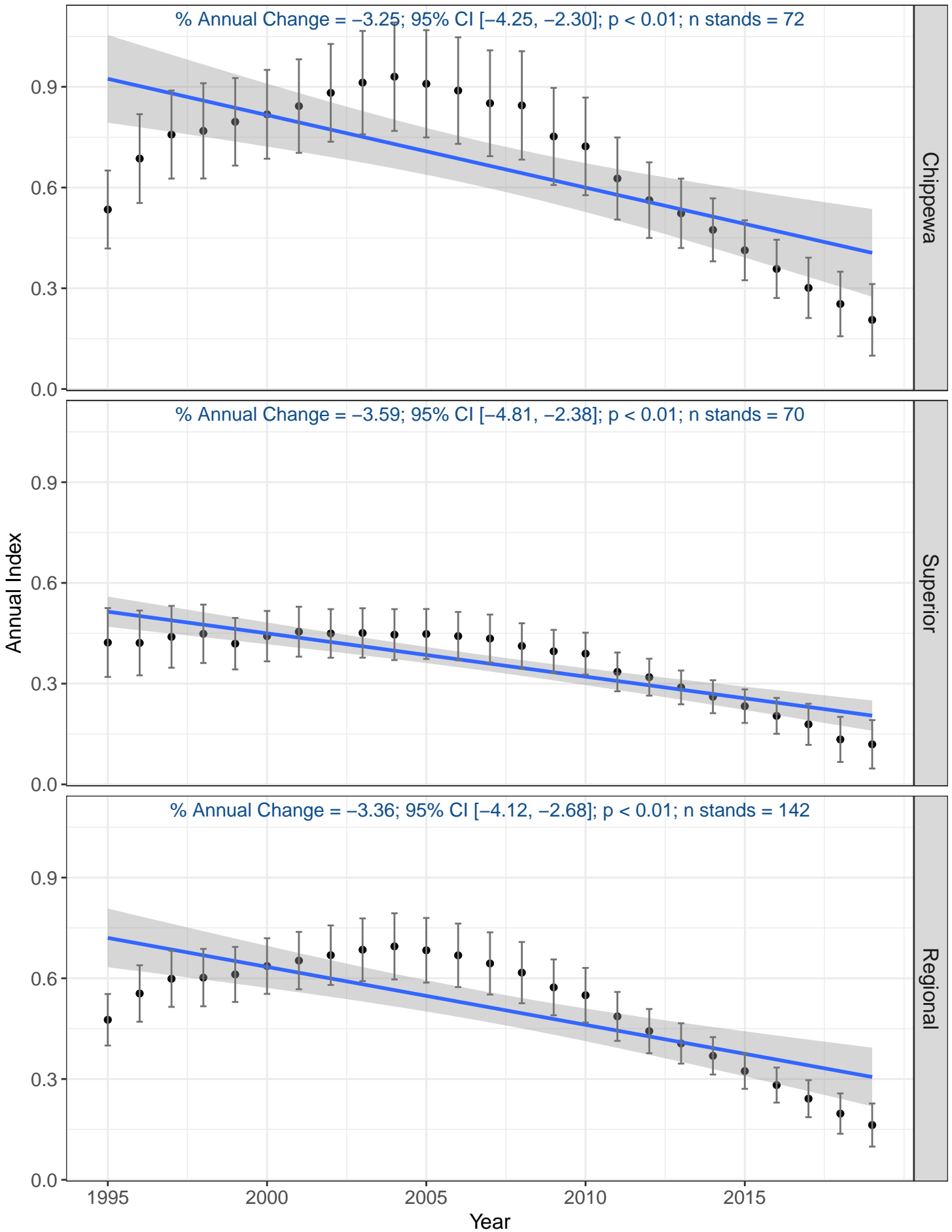
# Cedar Waxwing



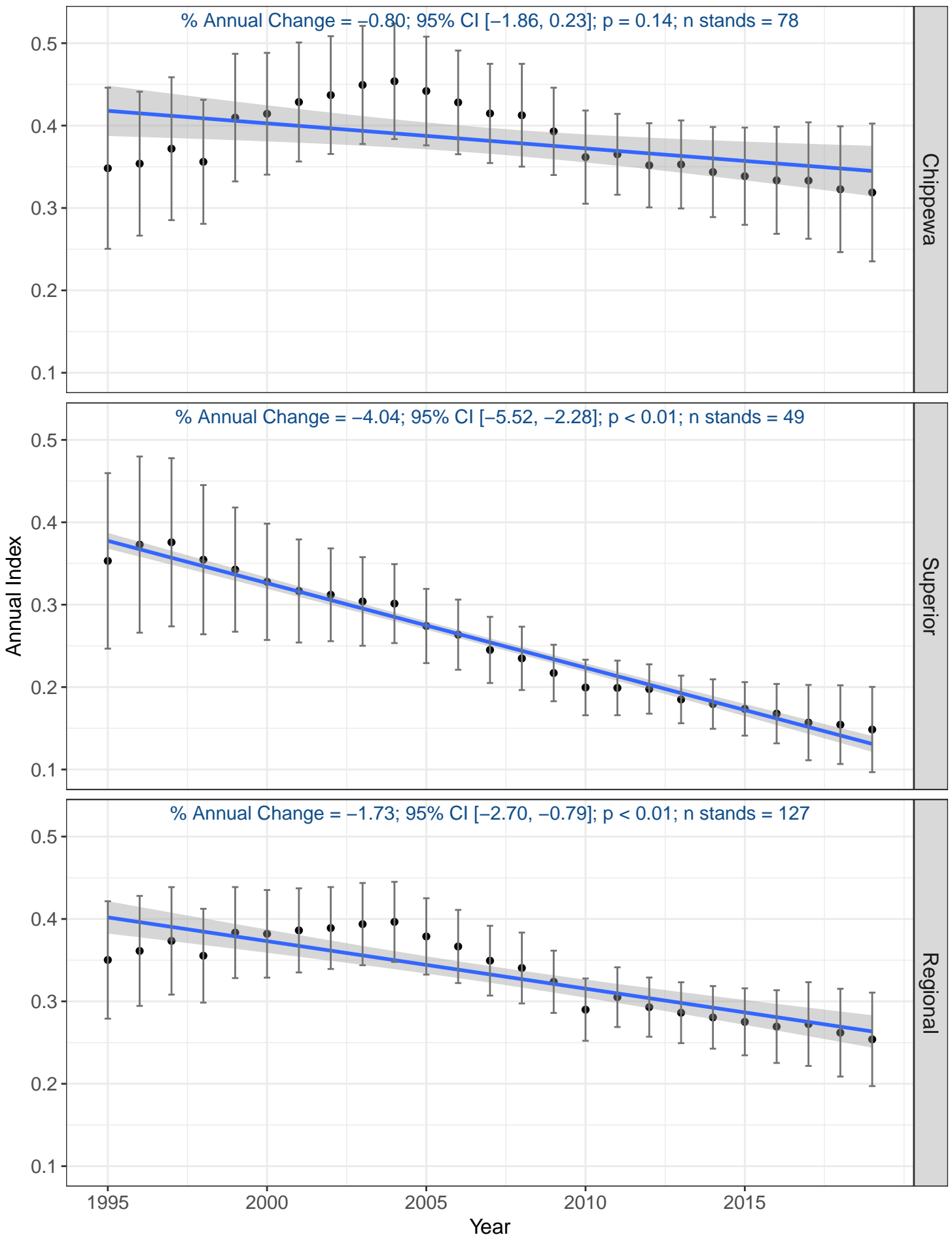
# Chestnut-sided Warbler



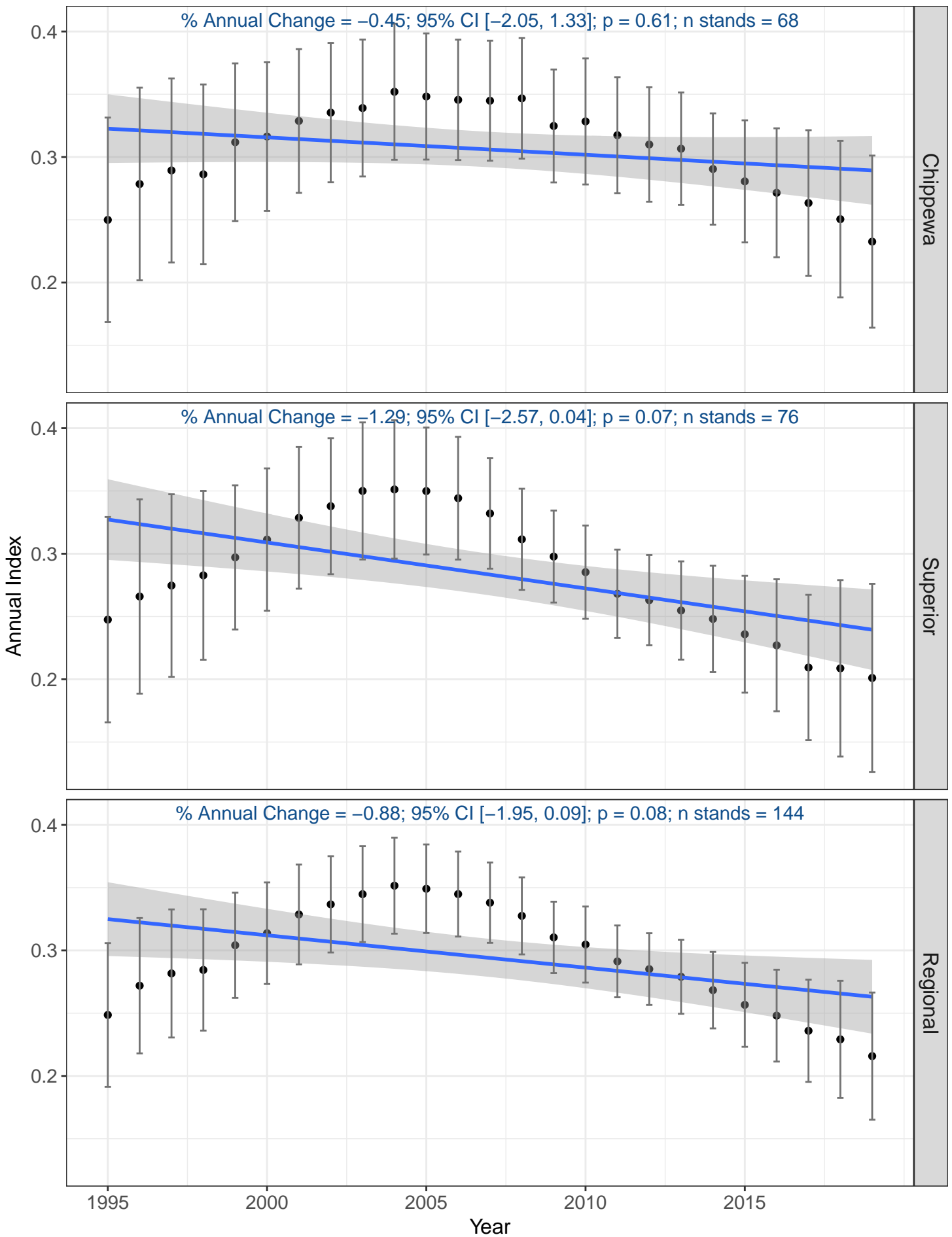
# Chipping Sparrow



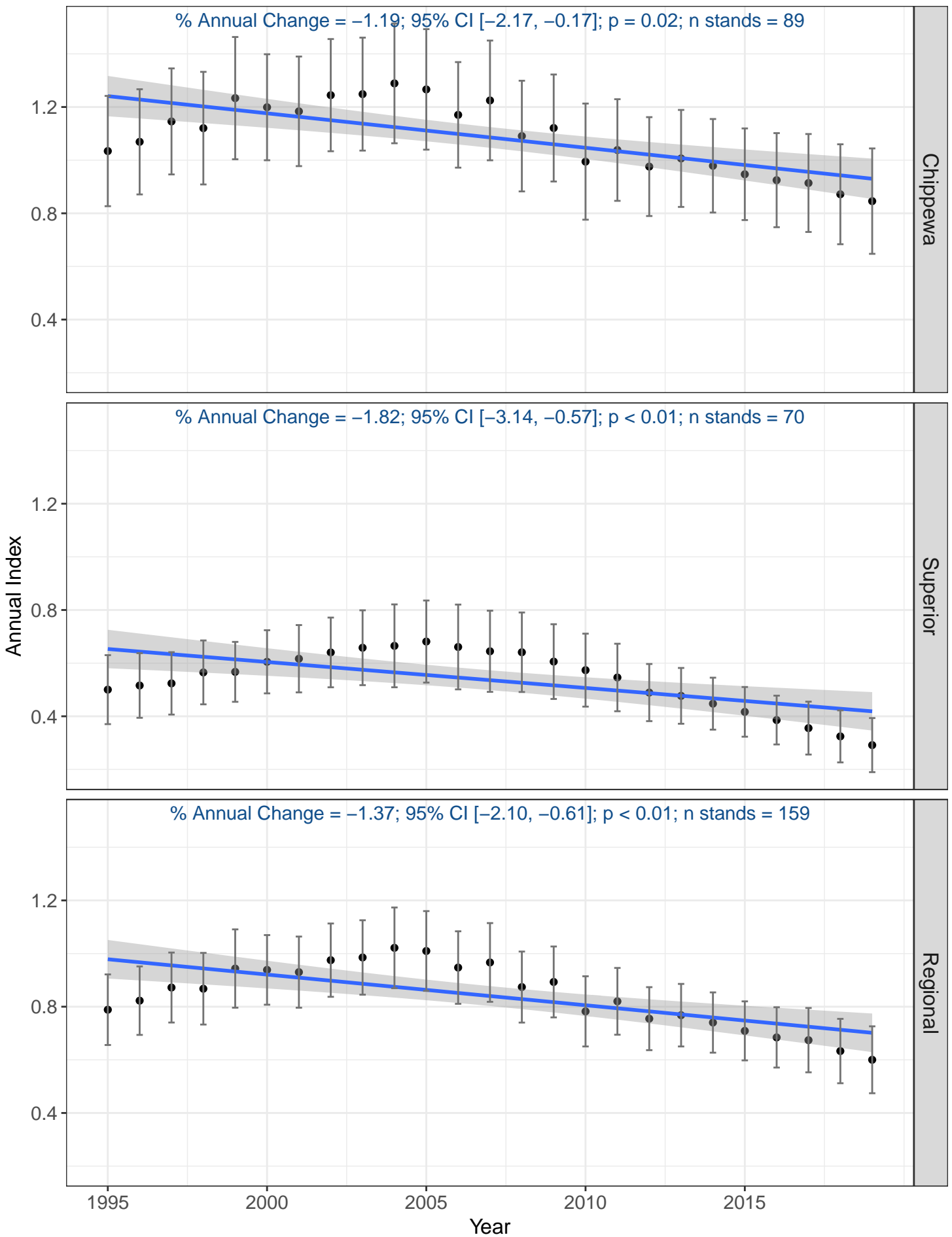
# Common Loon



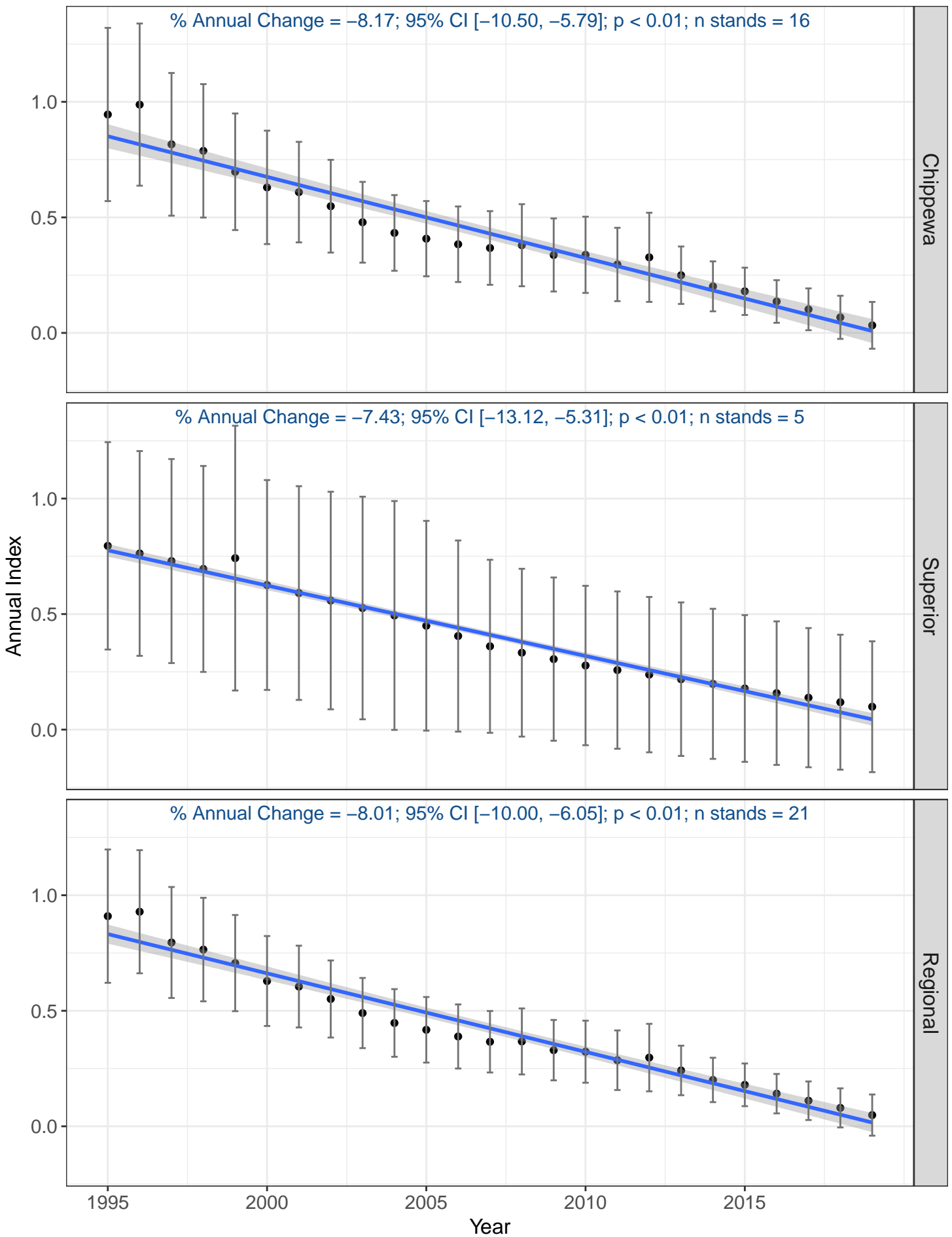
# Common Raven



# Common Yellowthroat

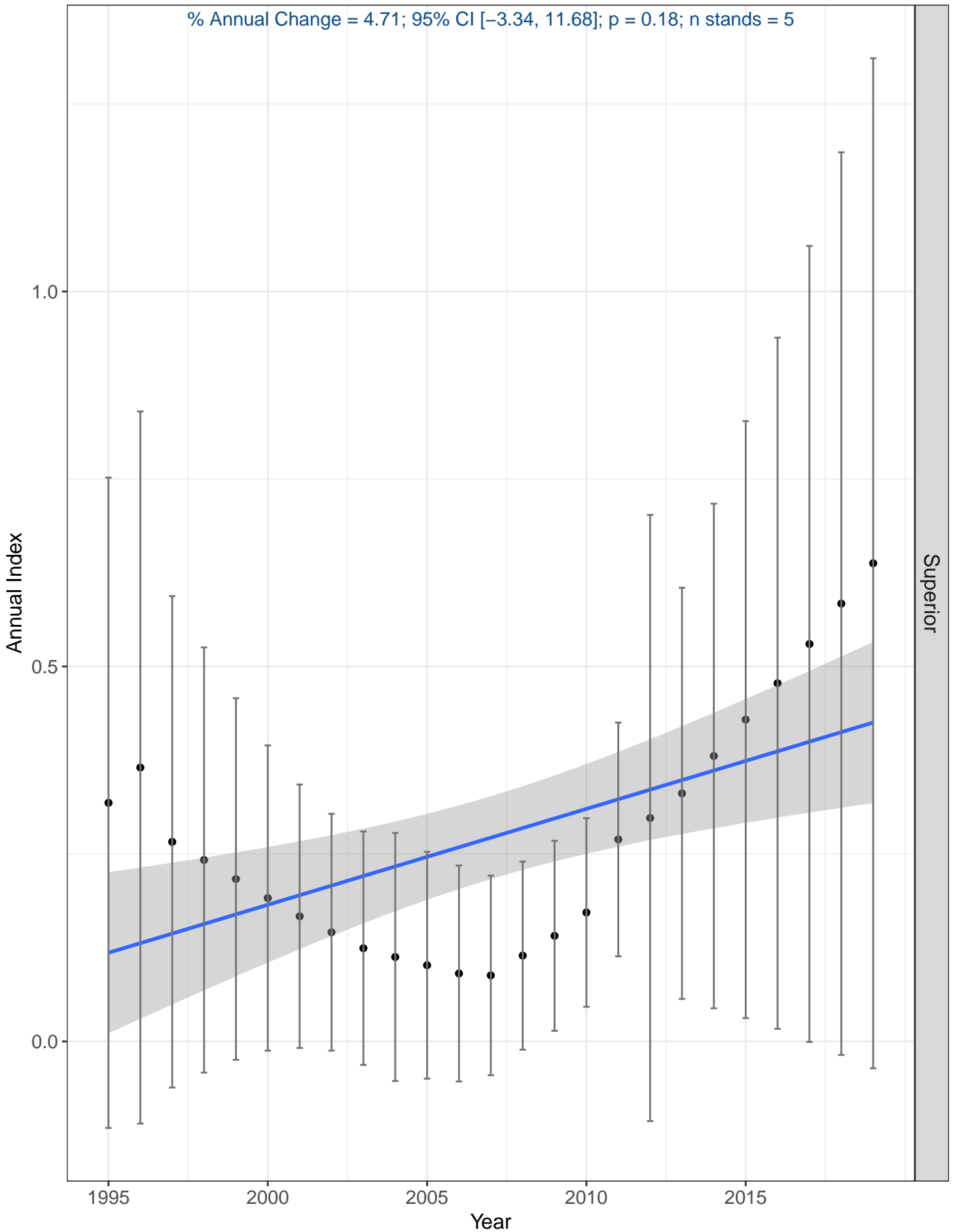


# Connecticut Warbler

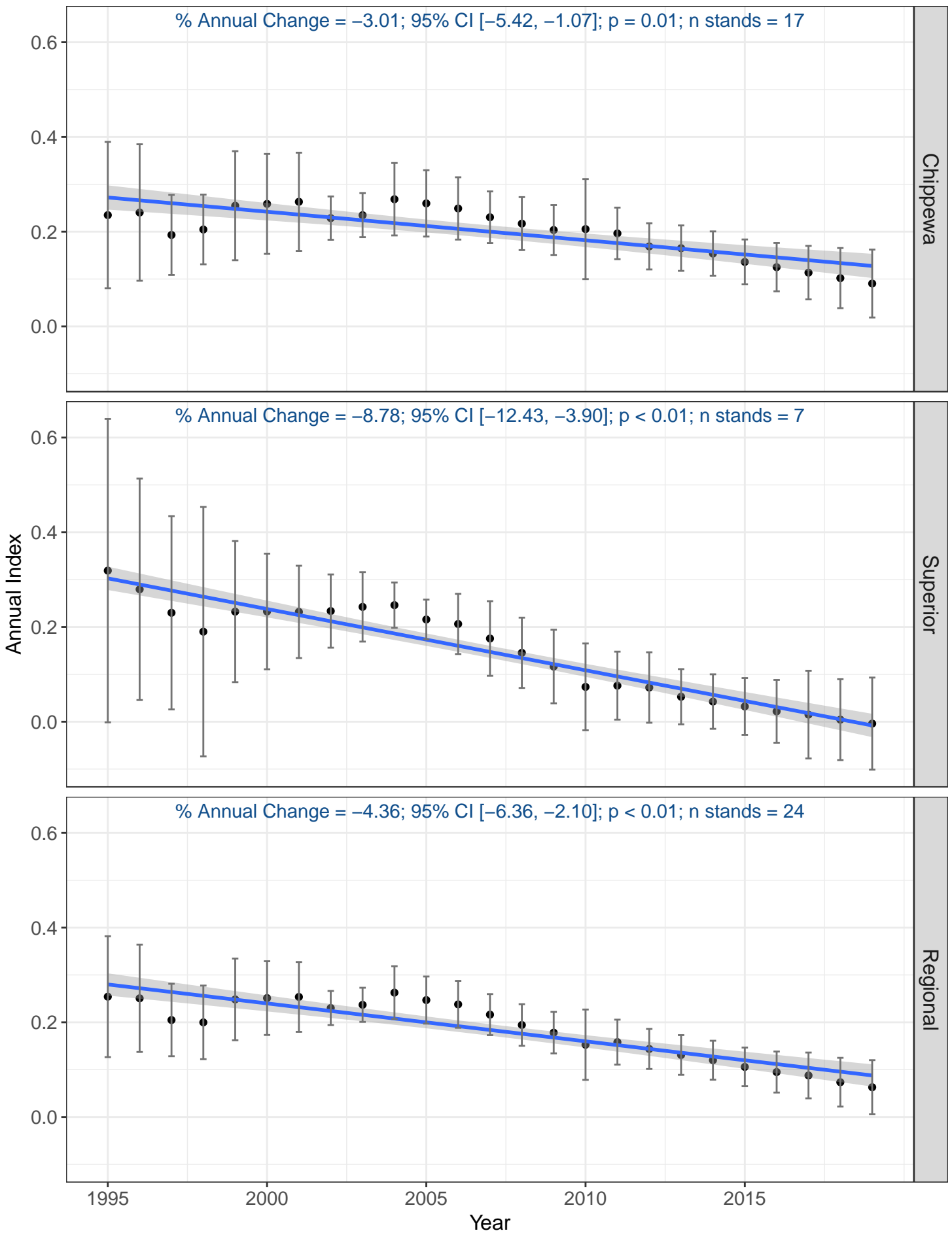


# Dark-eyed Junco (Slate-colored)

% Annual Change = 4.71; 95% CI [-3.34, 11.68]; p = 0.18; n stands = 5

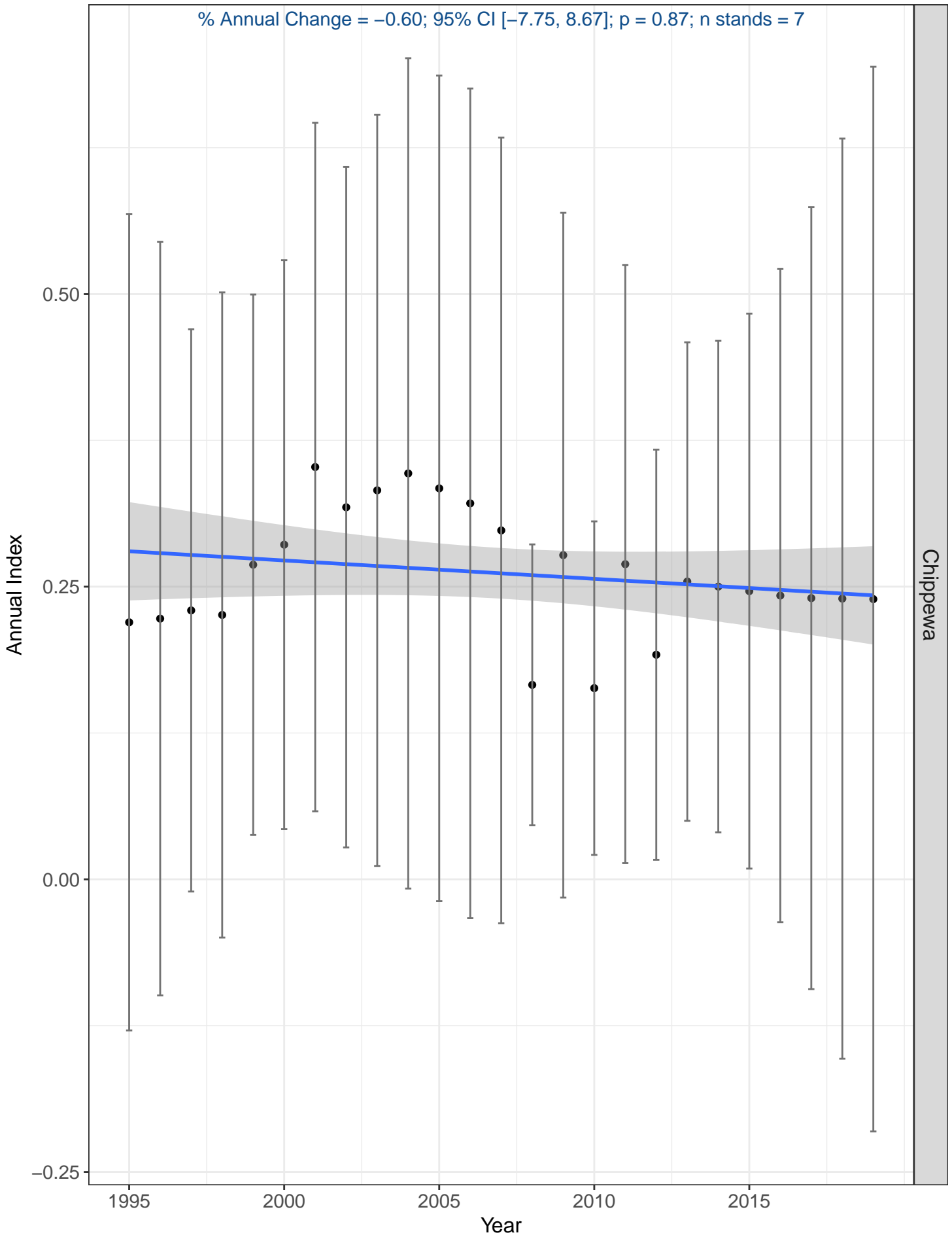


# Downy Woodpecker

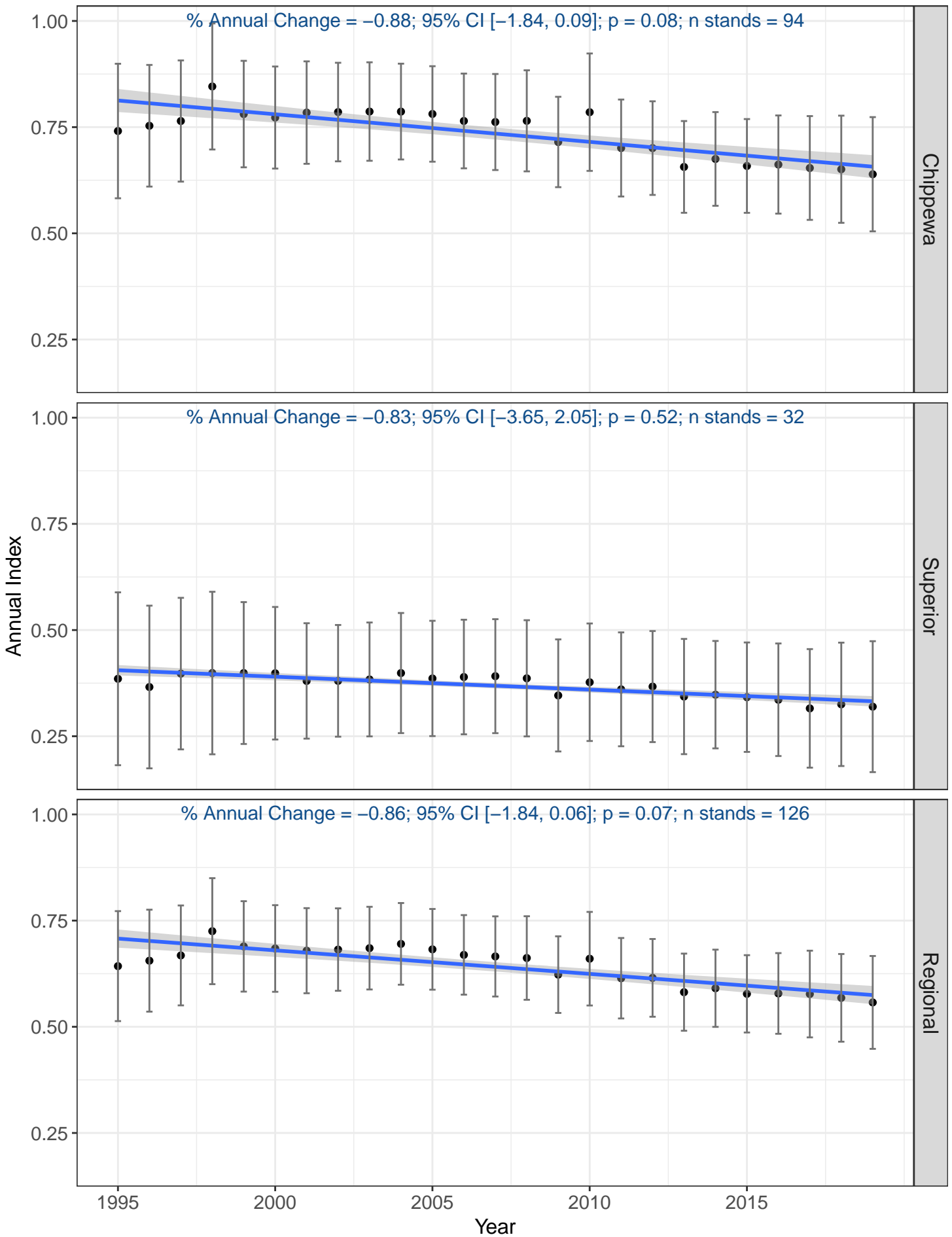


# Eastern Towhee

% Annual Change =  $-0.60$ ; 95% CI  $[-7.75, 8.67]$ ;  $p = 0.87$ ; n stands = 7

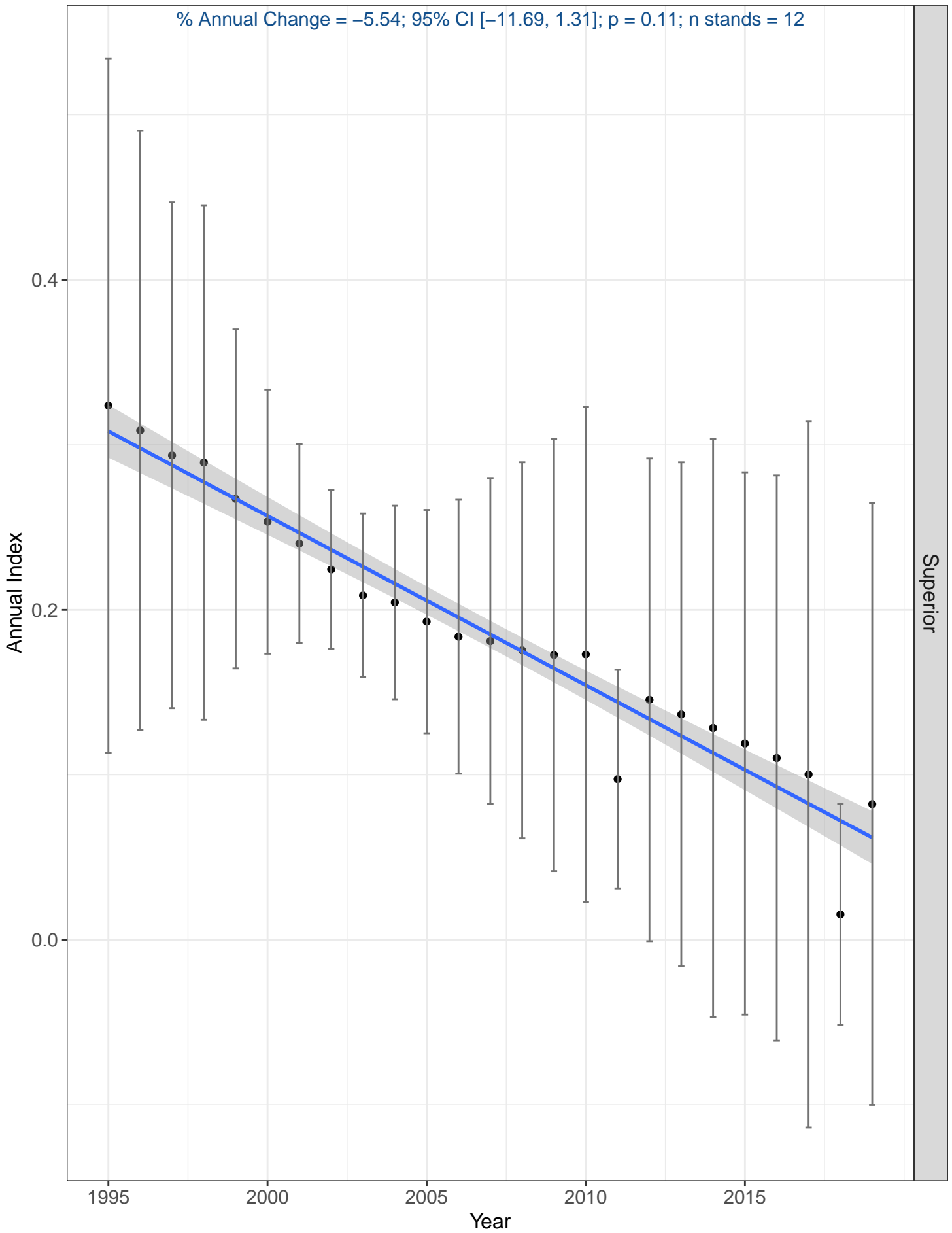


# Eastern Wood-Pewee

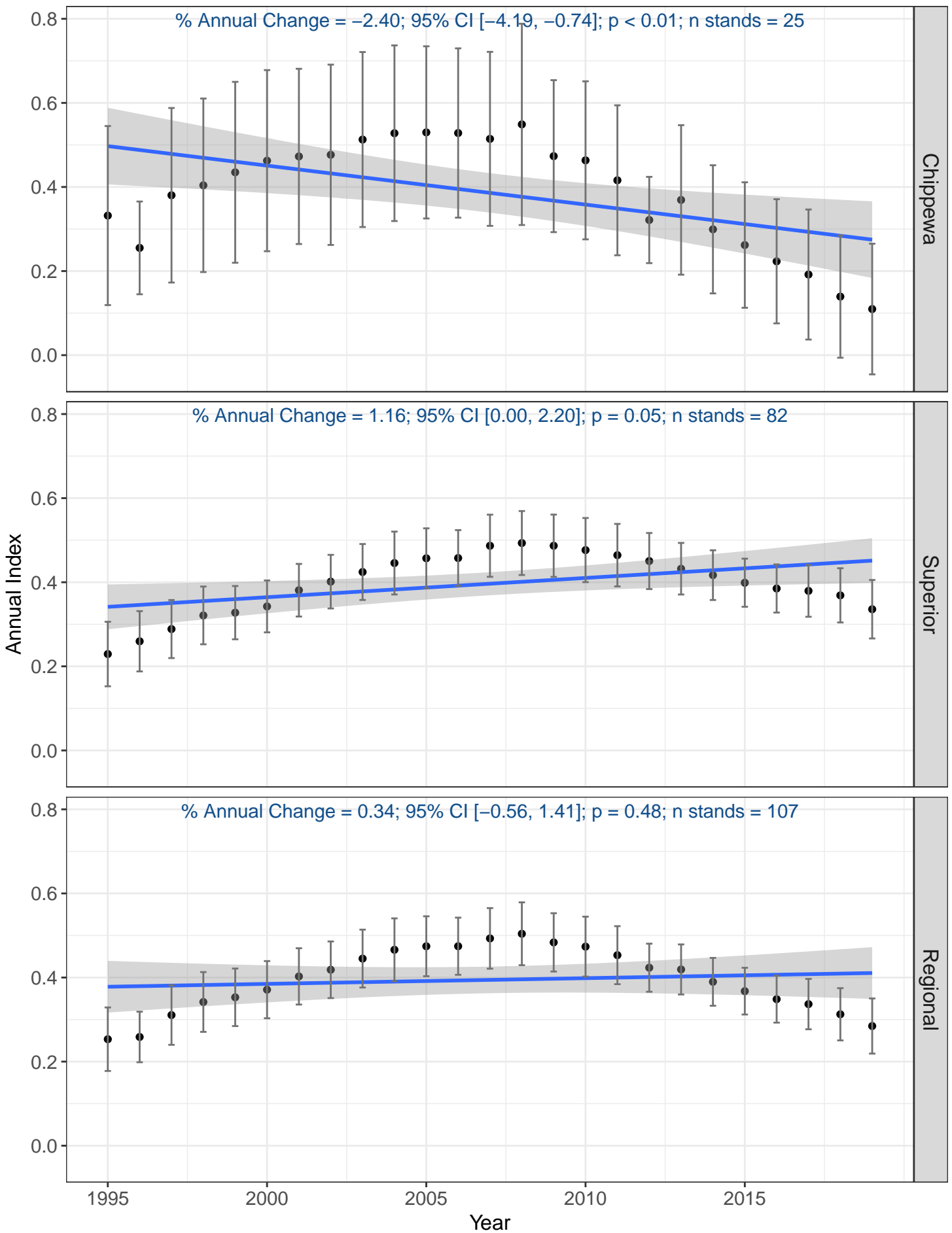


# Evening Grosbeak

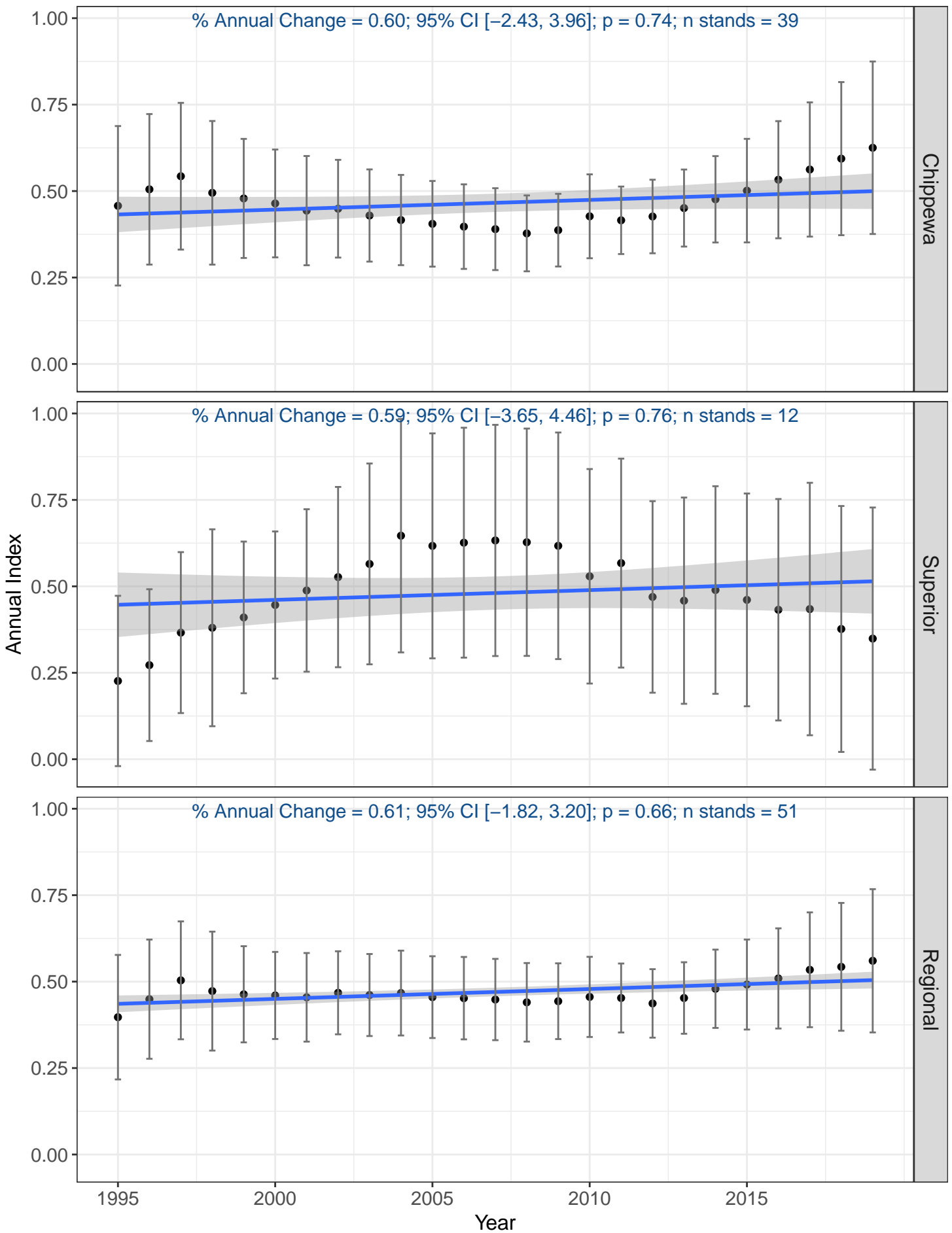
% Annual Change = -5.54; 95% CI [-11.69, 1.31]; p = 0.11; n stands = 12



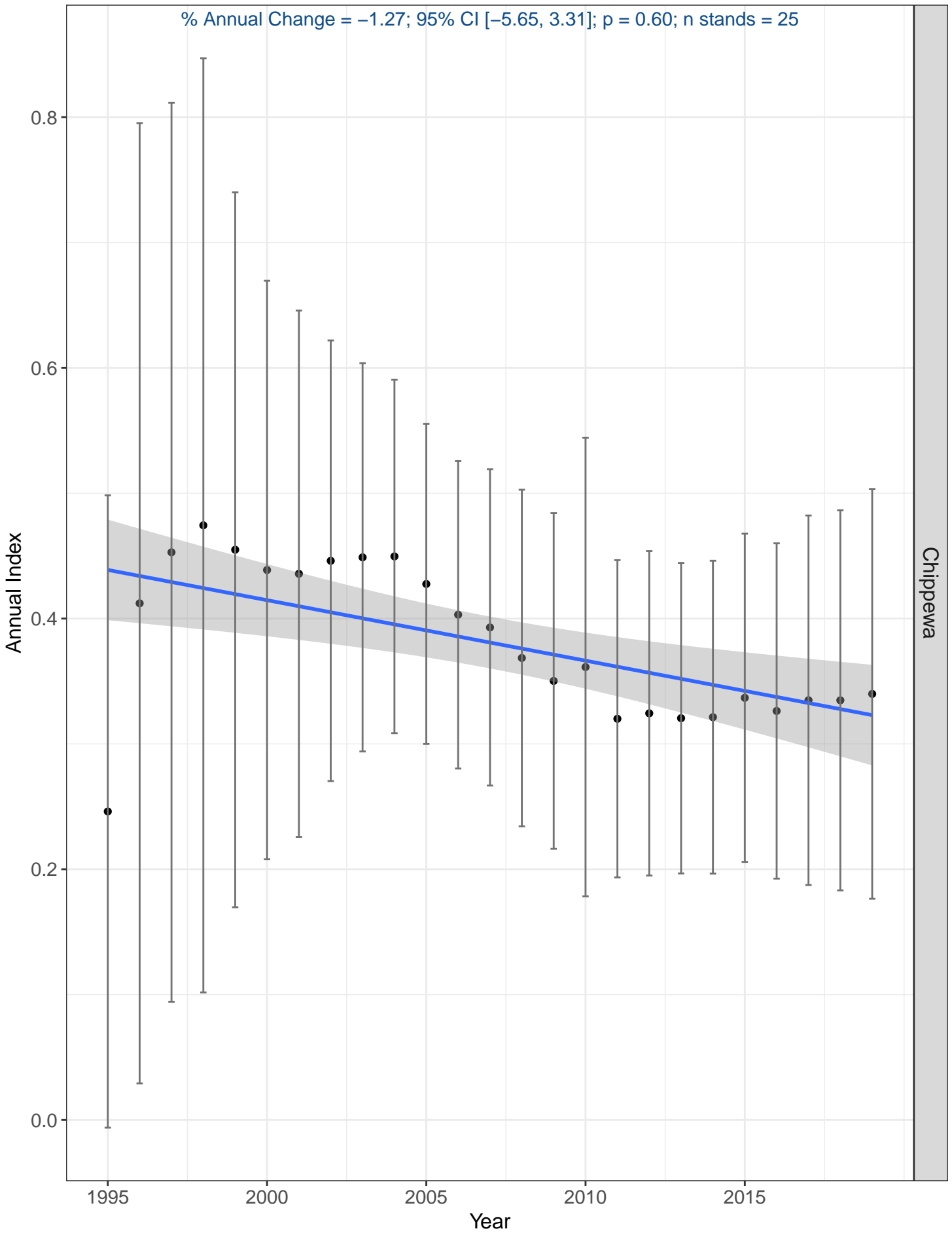
# Golden-crowned Kinglet



# Golden-winged Warbler

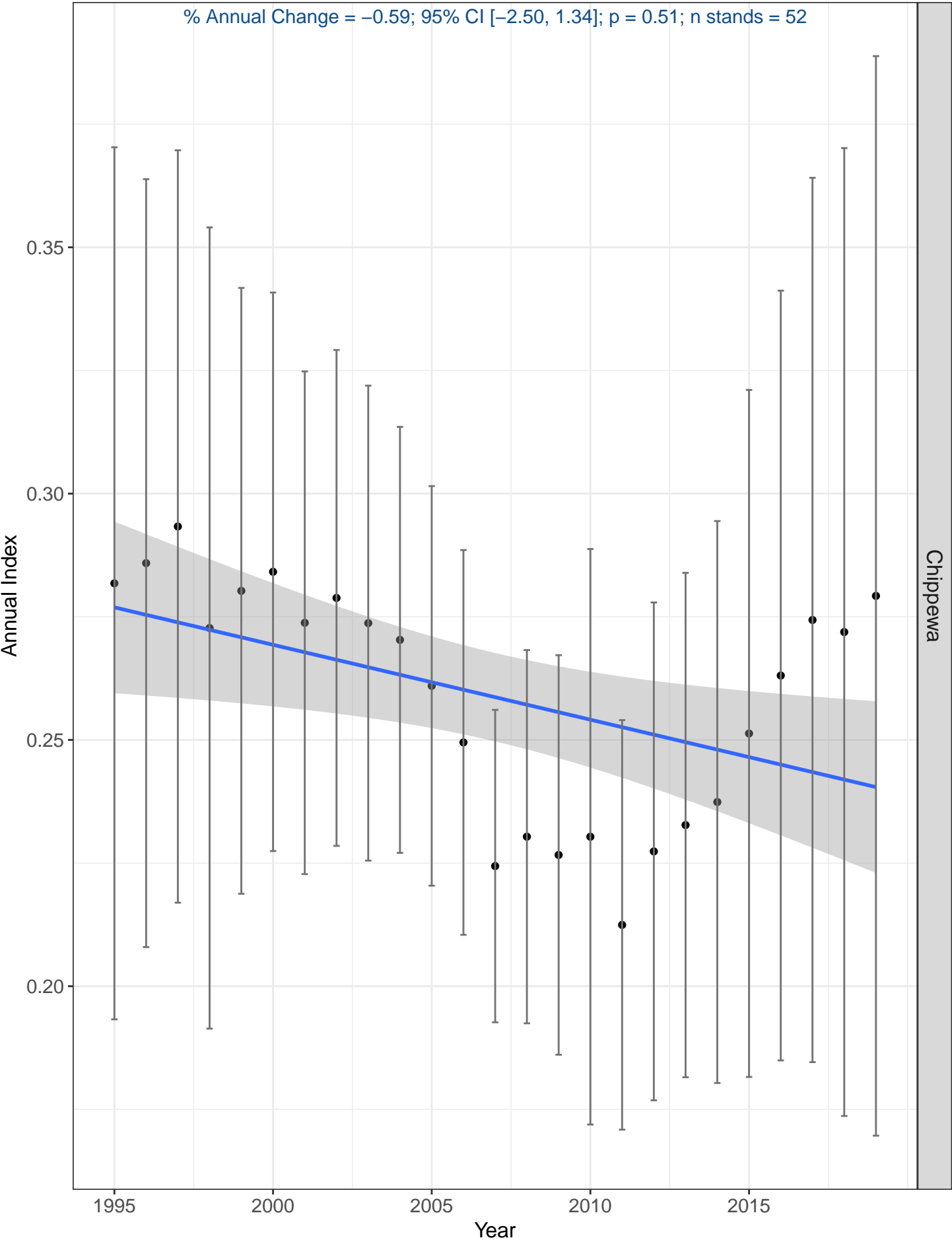


# Gray Catbird

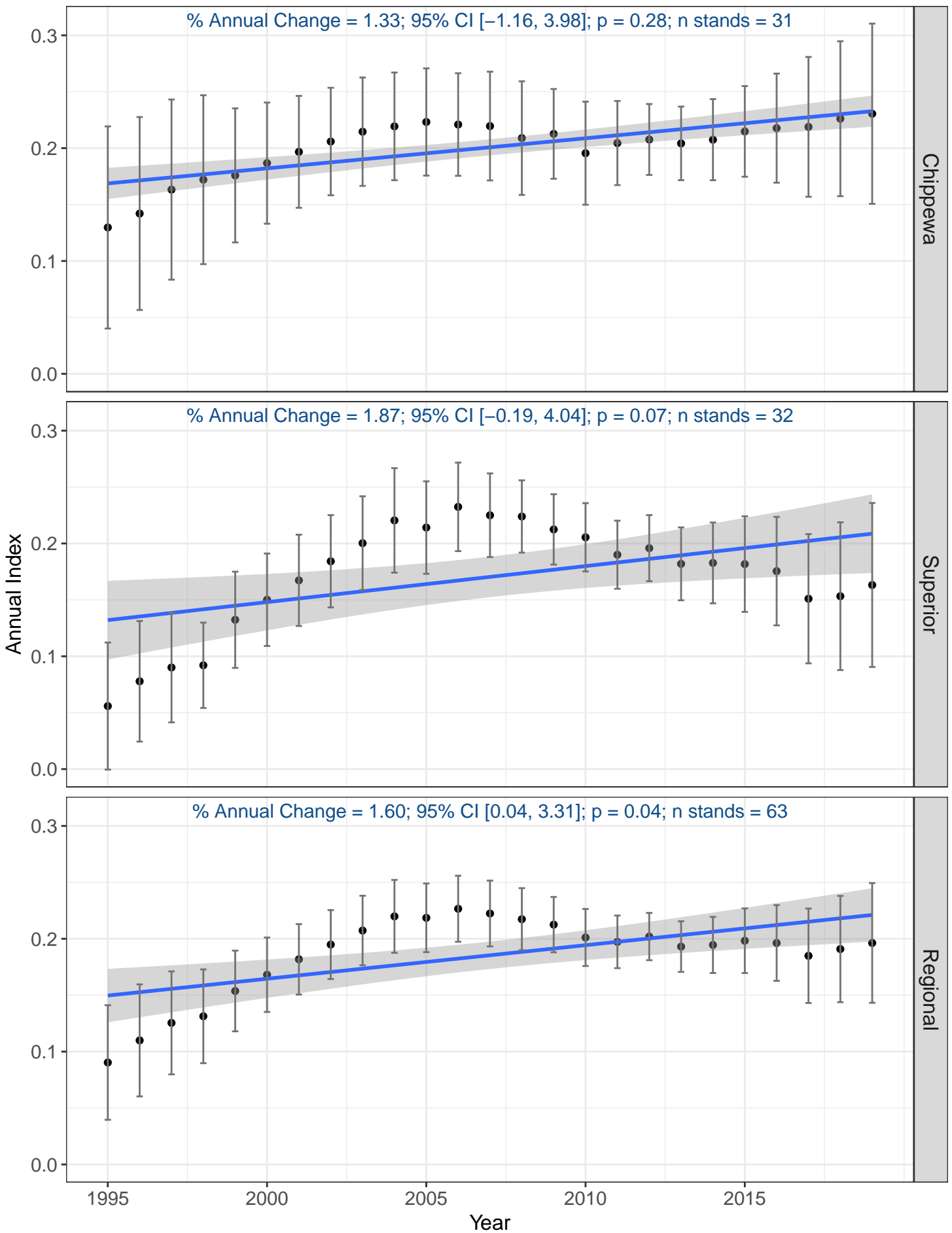


# Great Crested Flycatcher

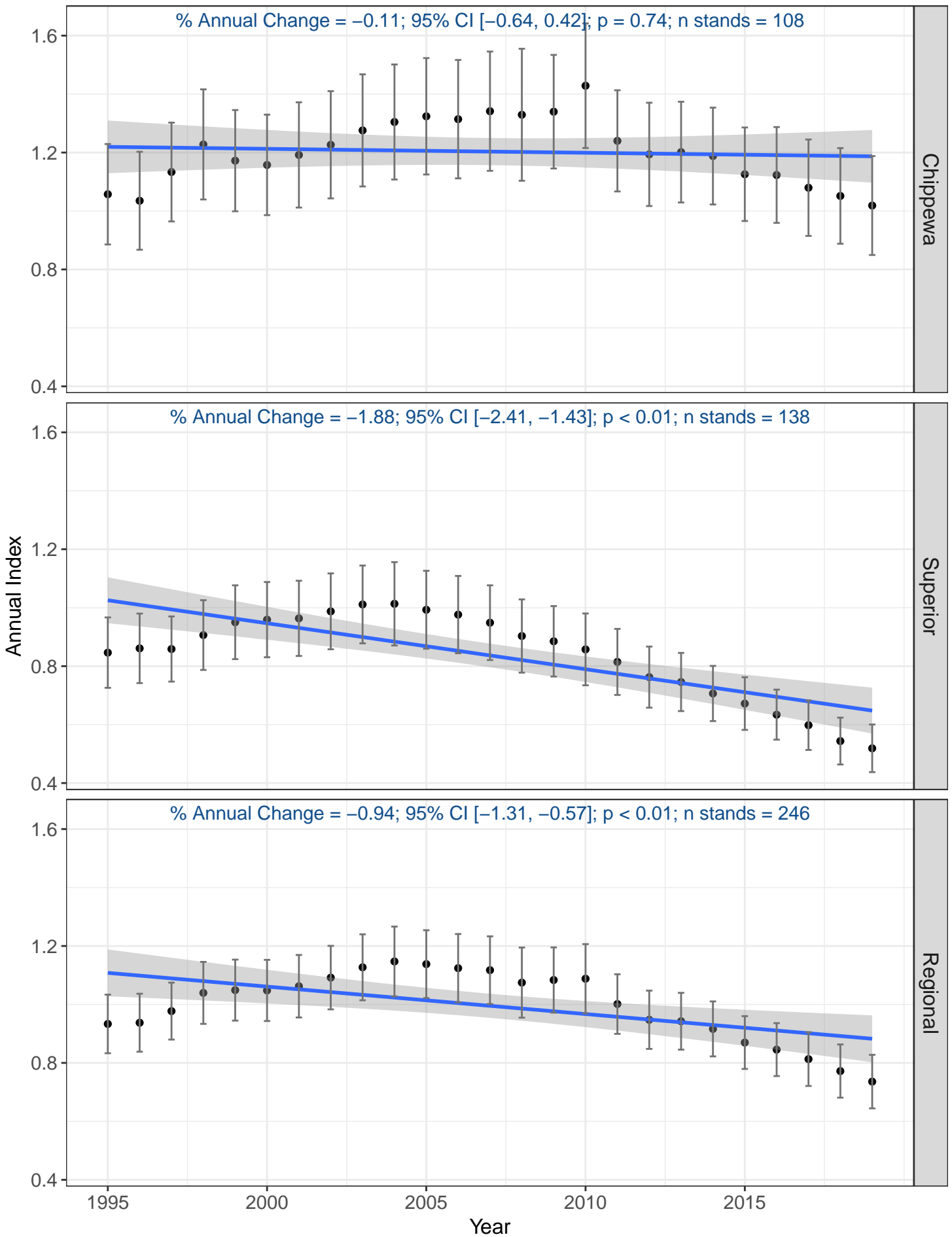
% Annual Change = -0.59; 95% CI [-2.50, 1.34]; p = 0.51; n stands = 52



# Hairy Woodpecker

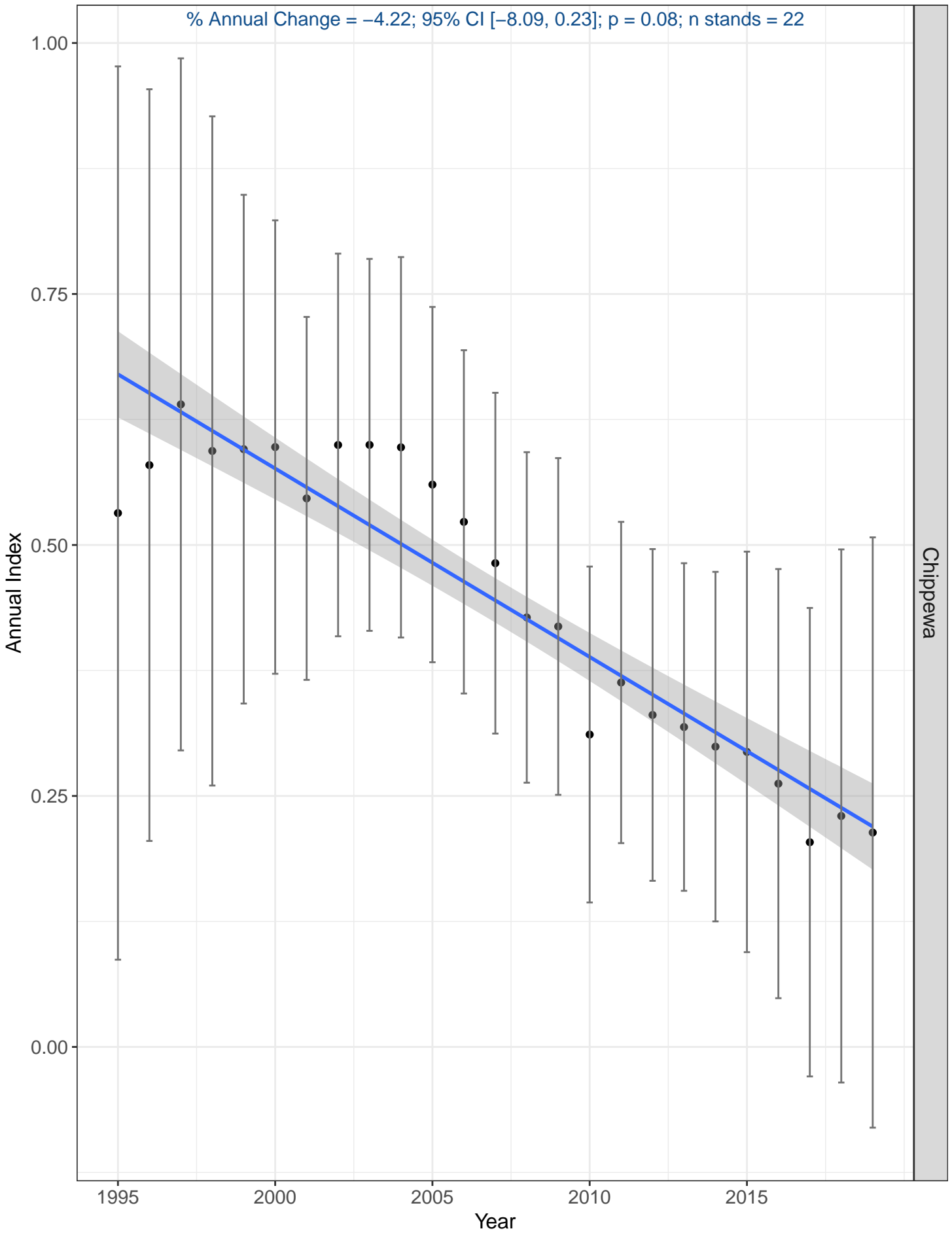


# Hermit Thrush

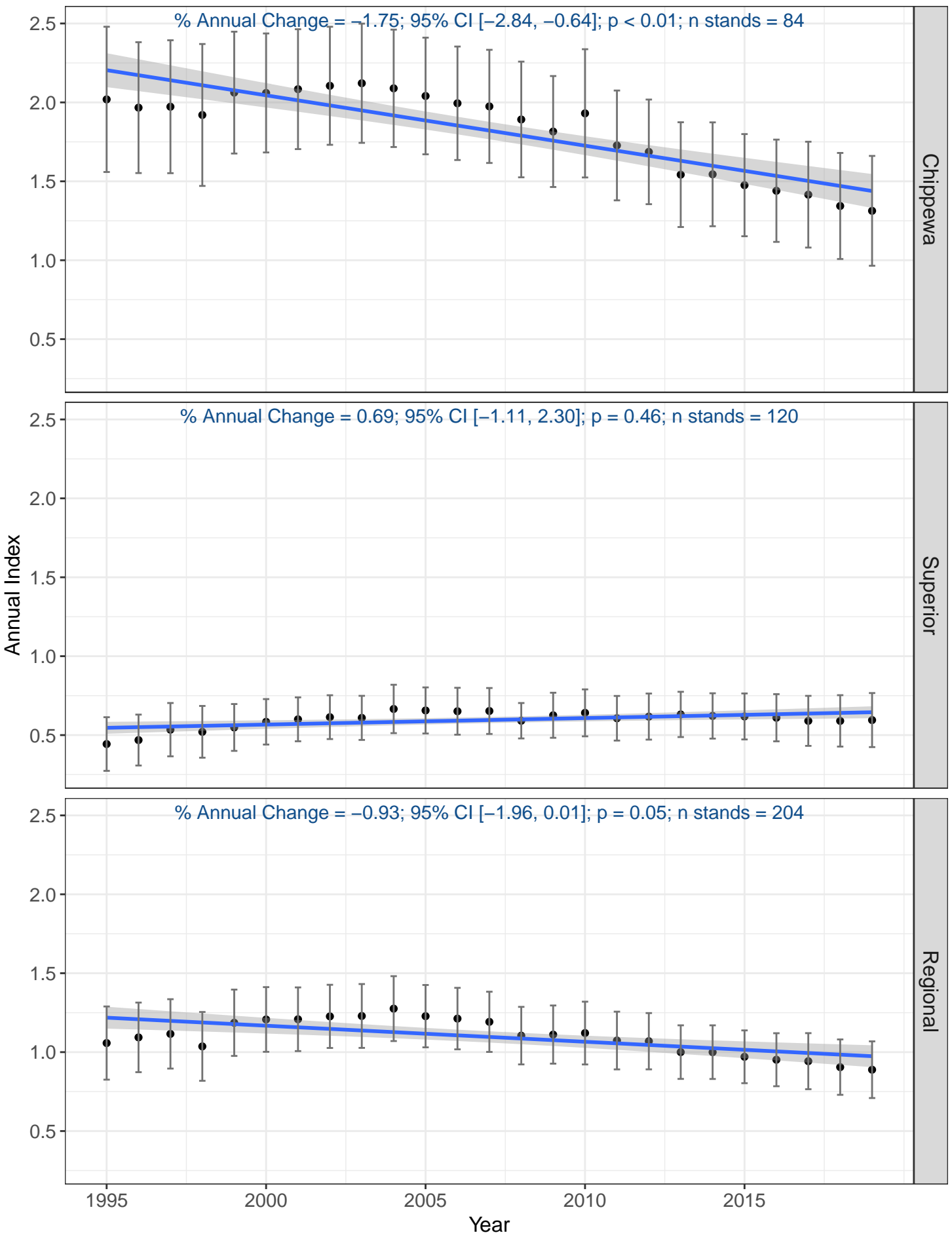


# Indigo Bunting

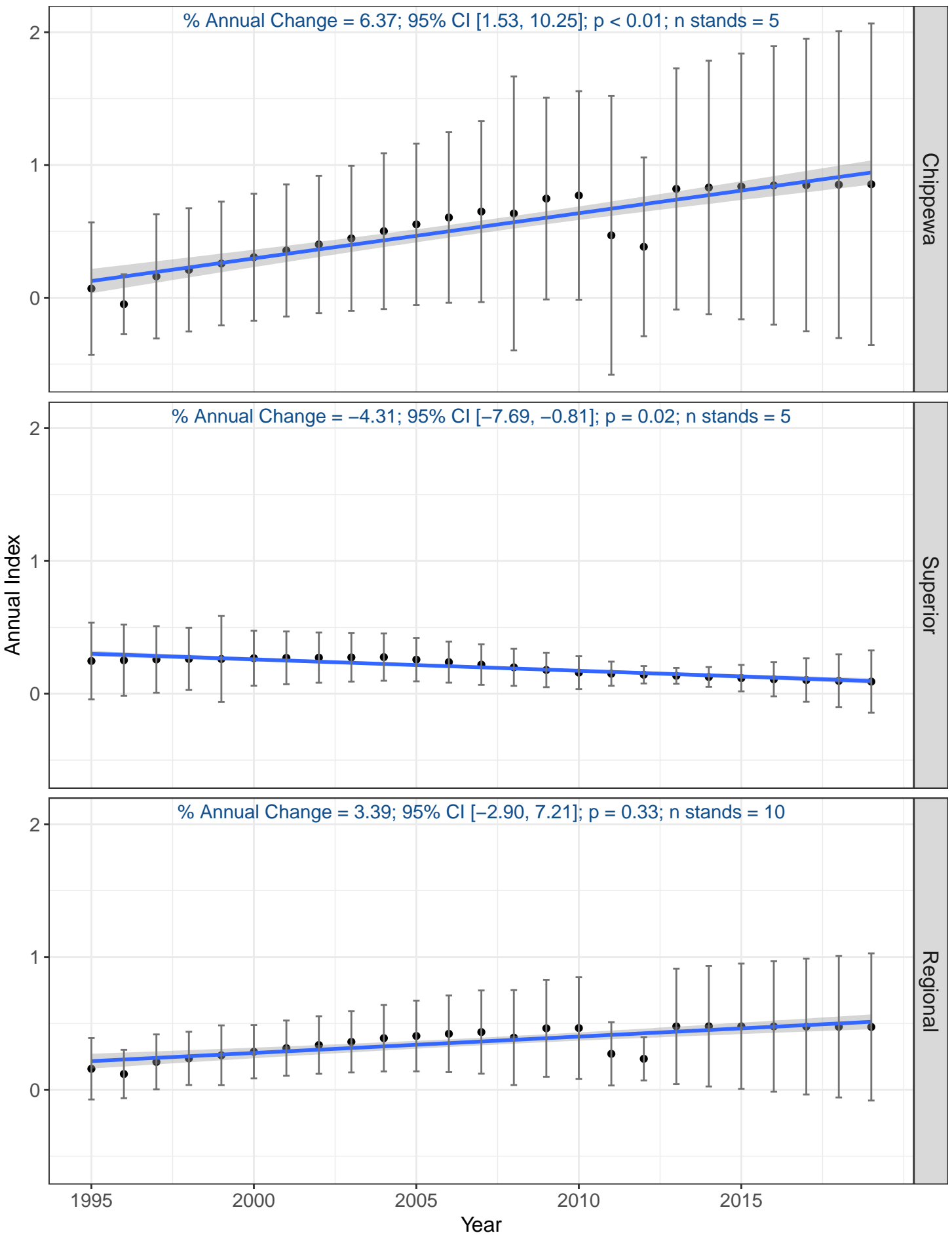
% Annual Change = -4.22; 95% CI [-8.09, 0.23]; p = 0.08; n stands = 22



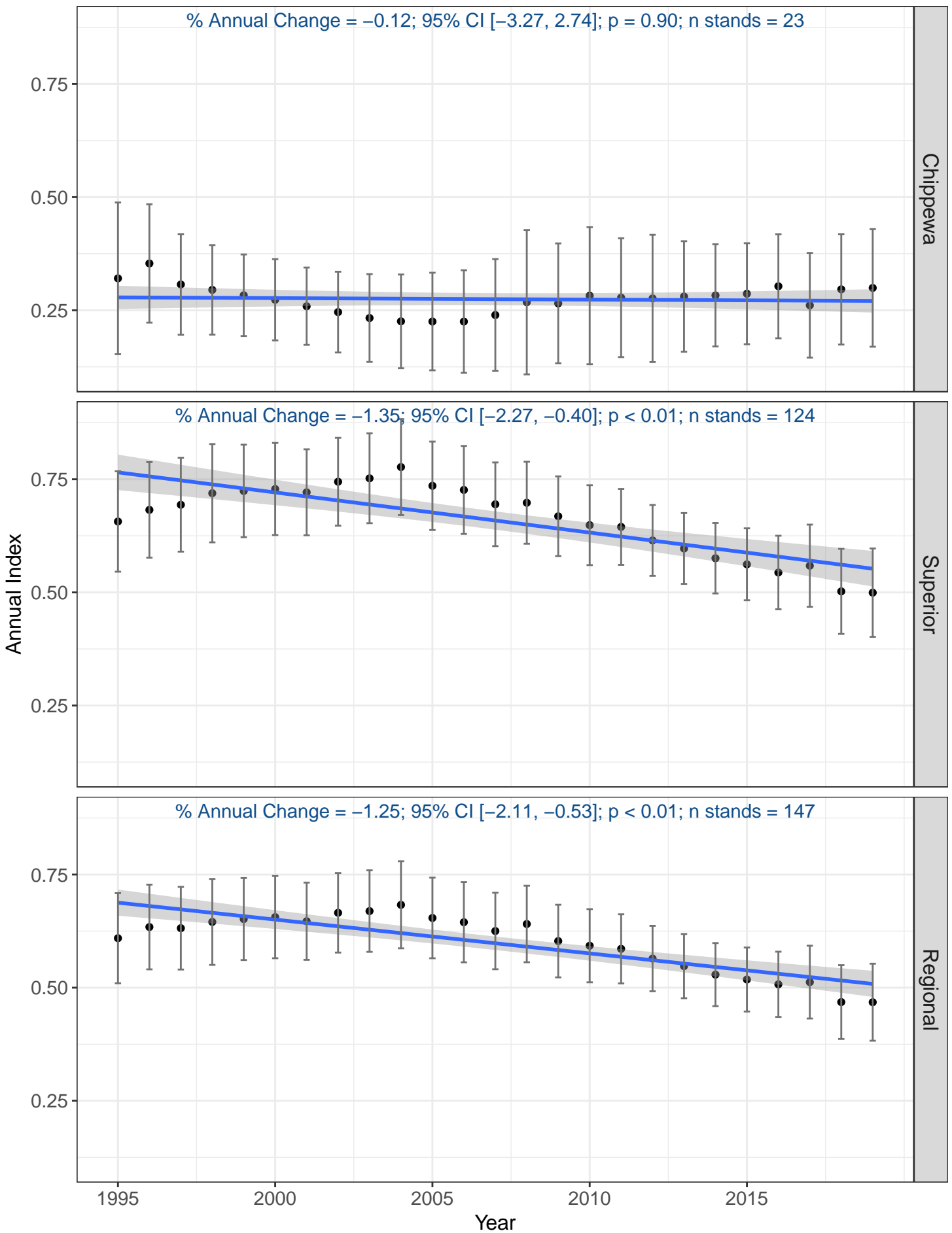
# Least Flycatcher



# Lincoln's Sparrow

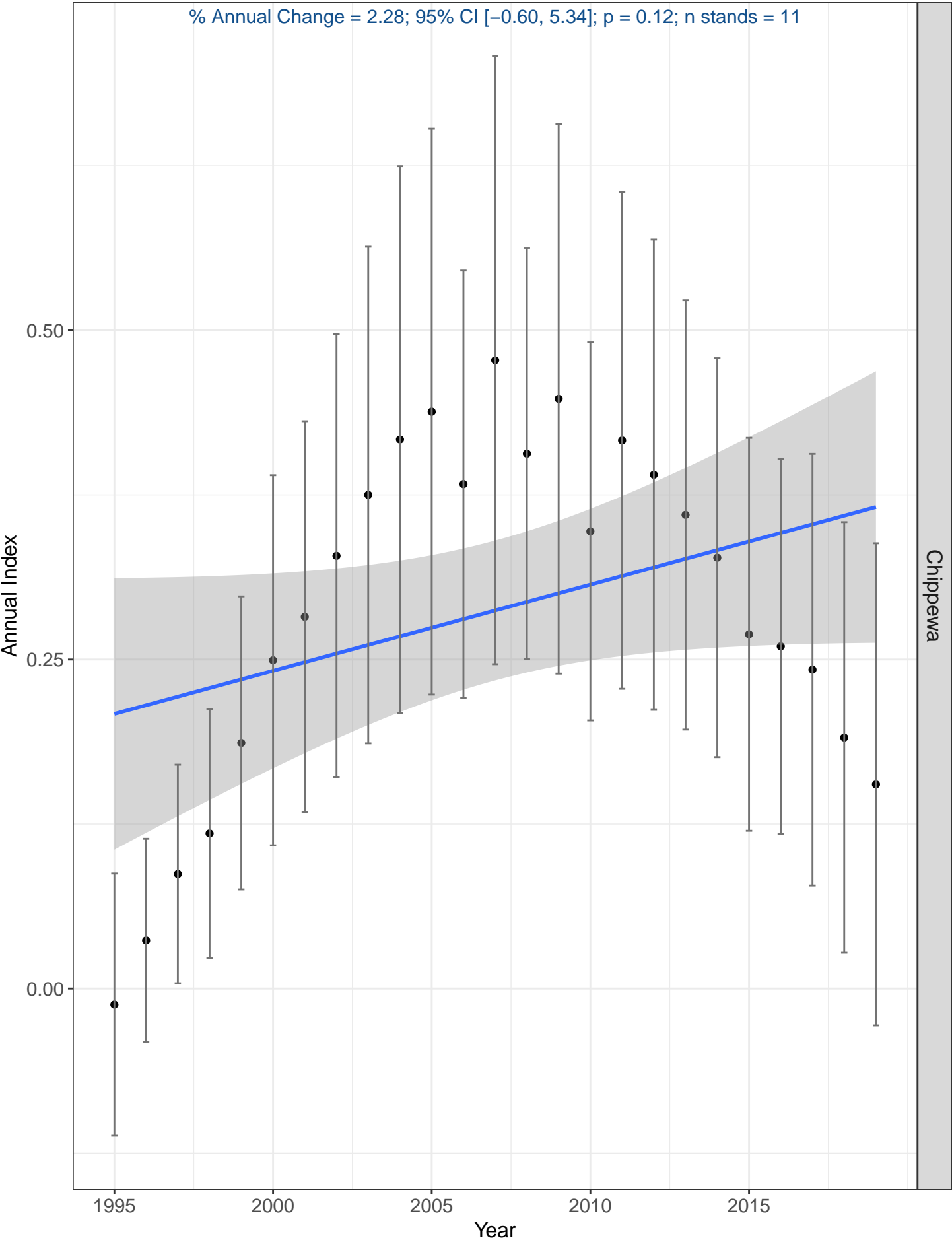


# Magnolia Warbler

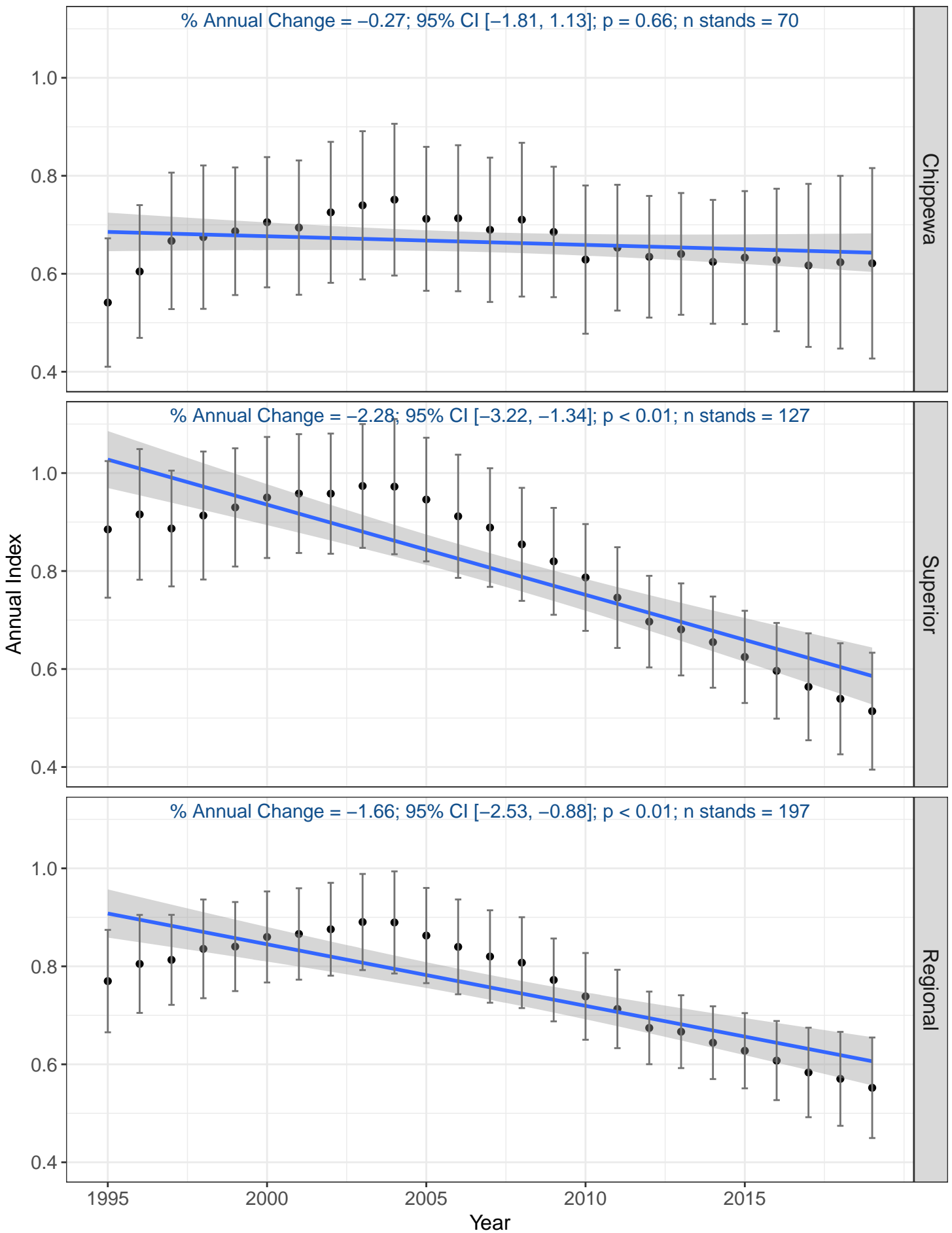


# Mourning Dove

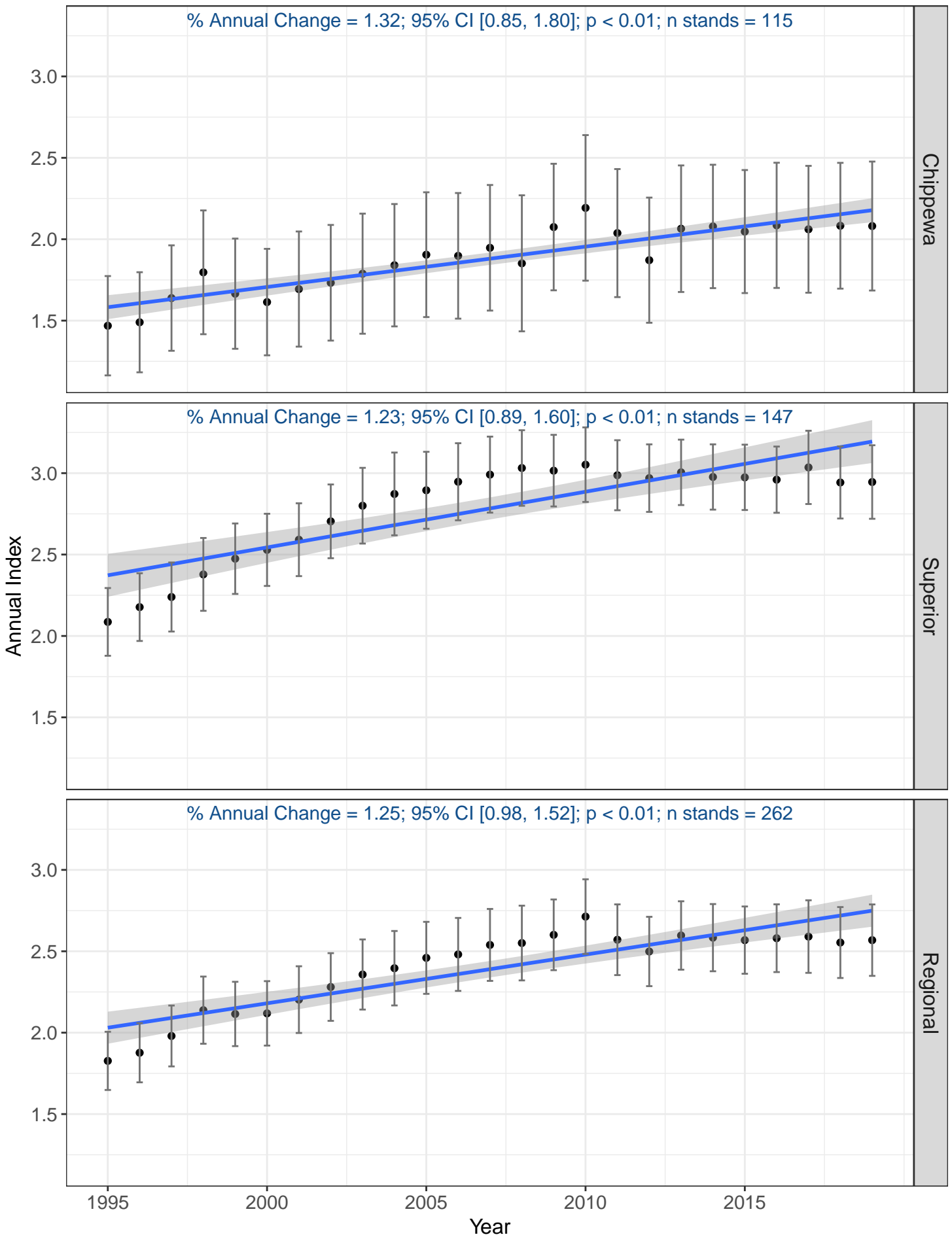
% Annual Change = 2.28; 95% CI [-0.60, 5.34]; p = 0.12; n stands = 11



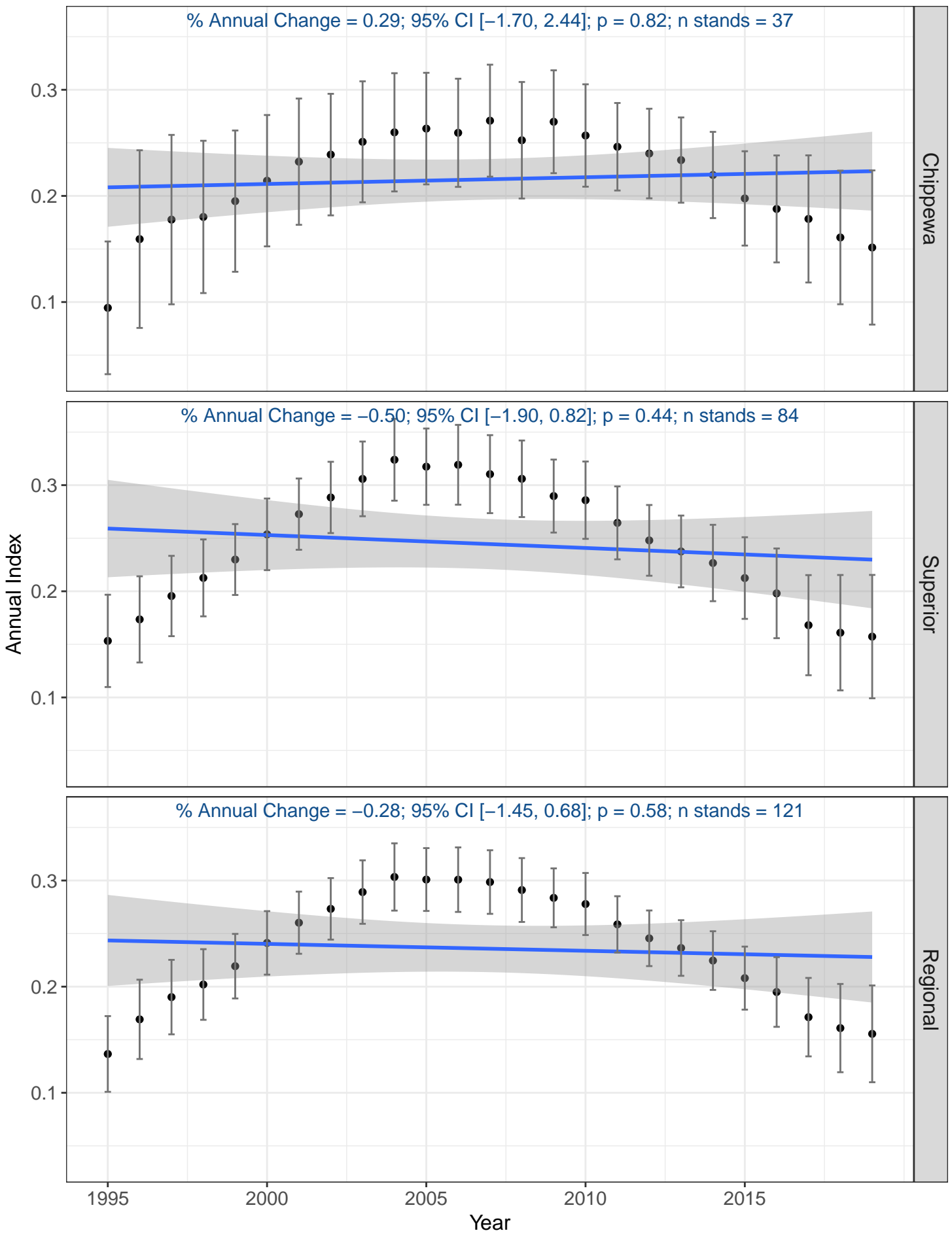
# Mourning Warbler



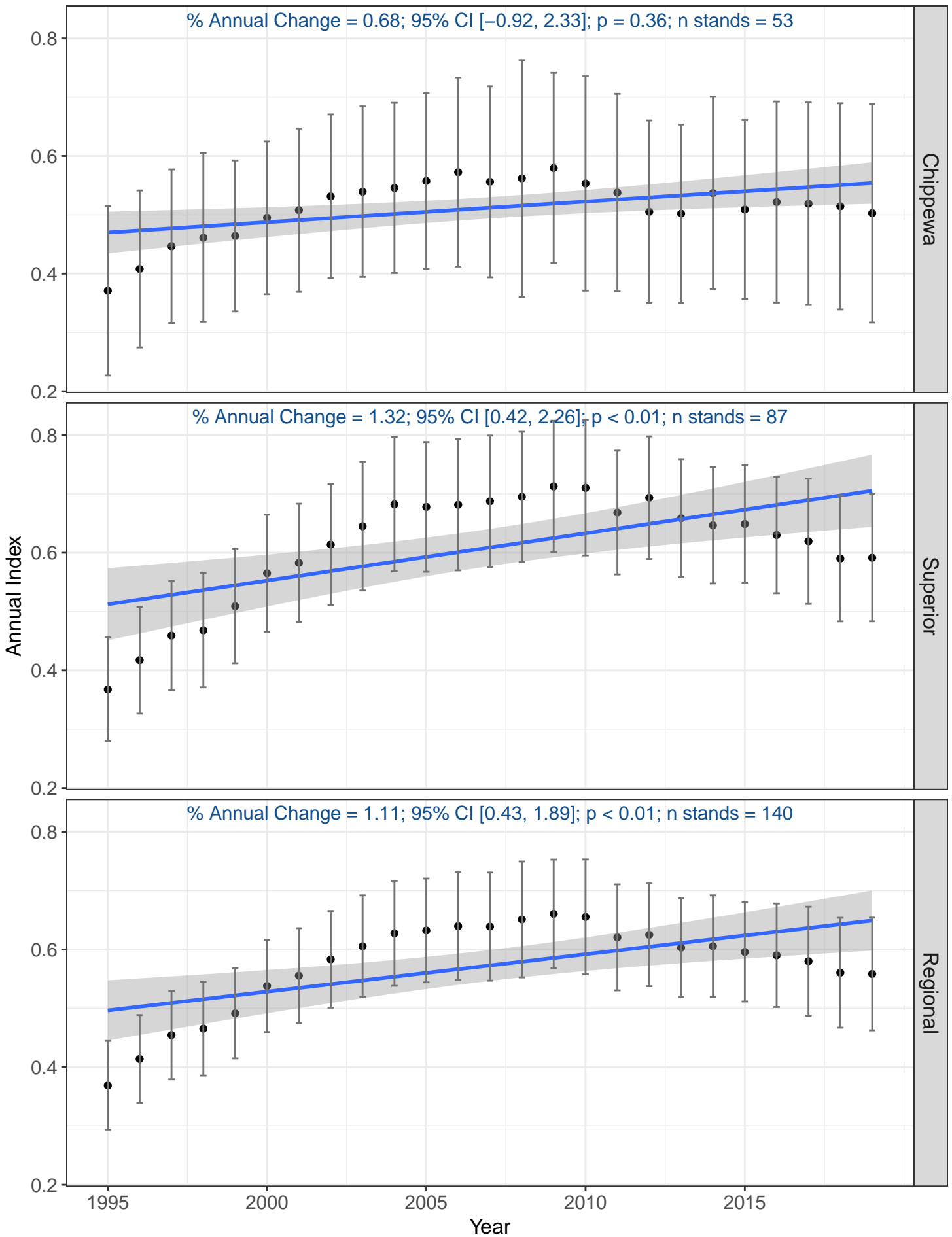
# Nashville Warbler



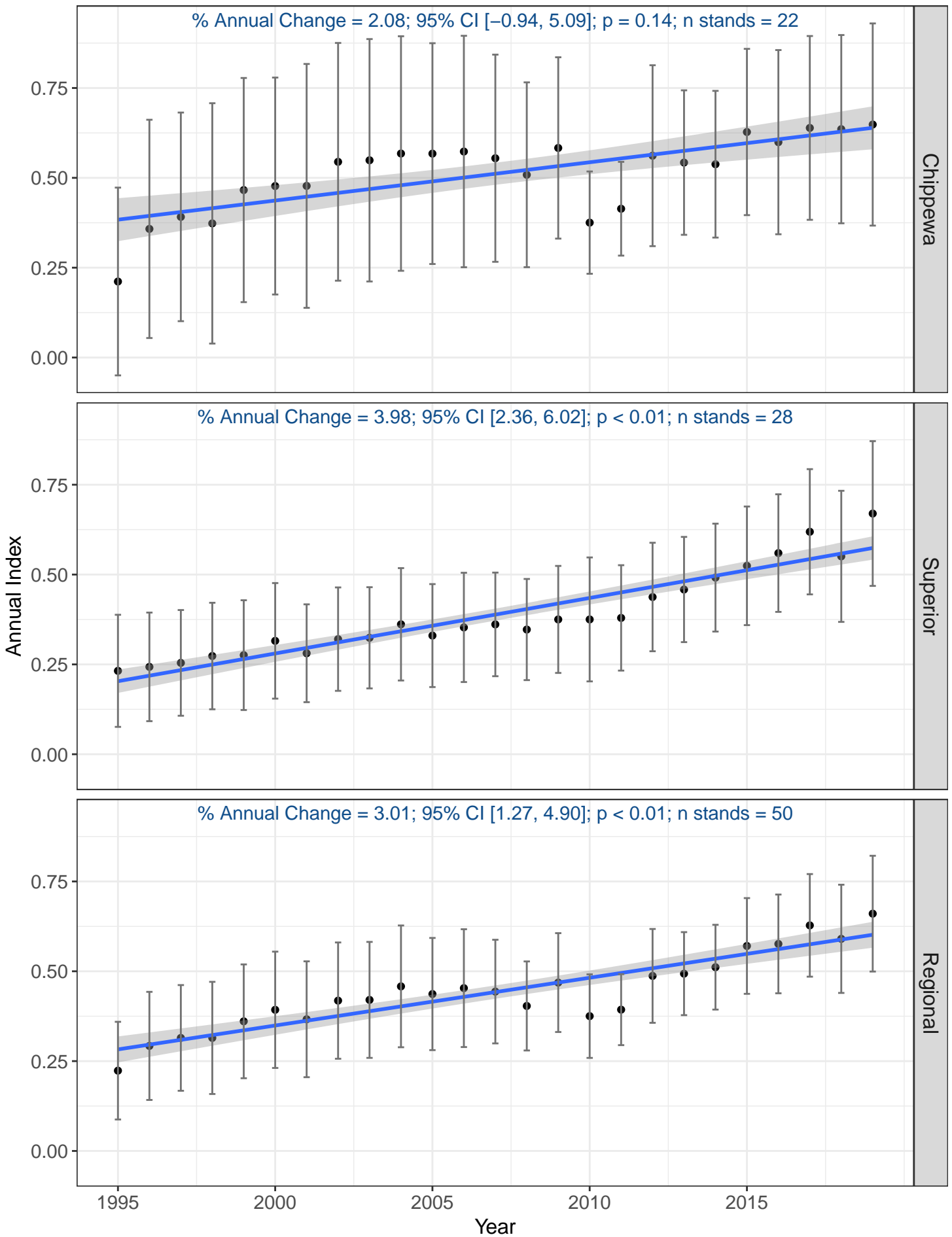
# Northern Flicker (Yellow-shafted)



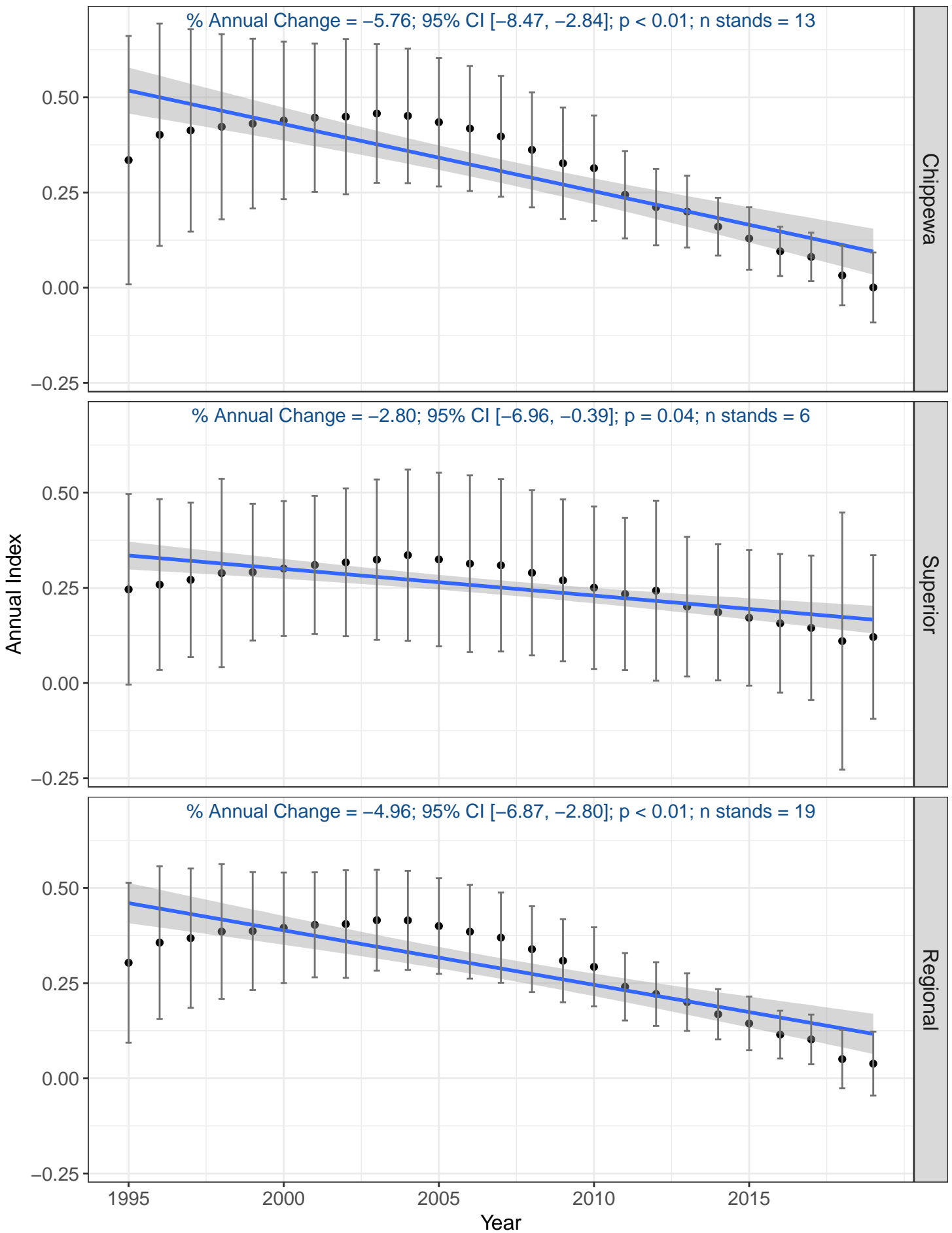
# Northern Parula



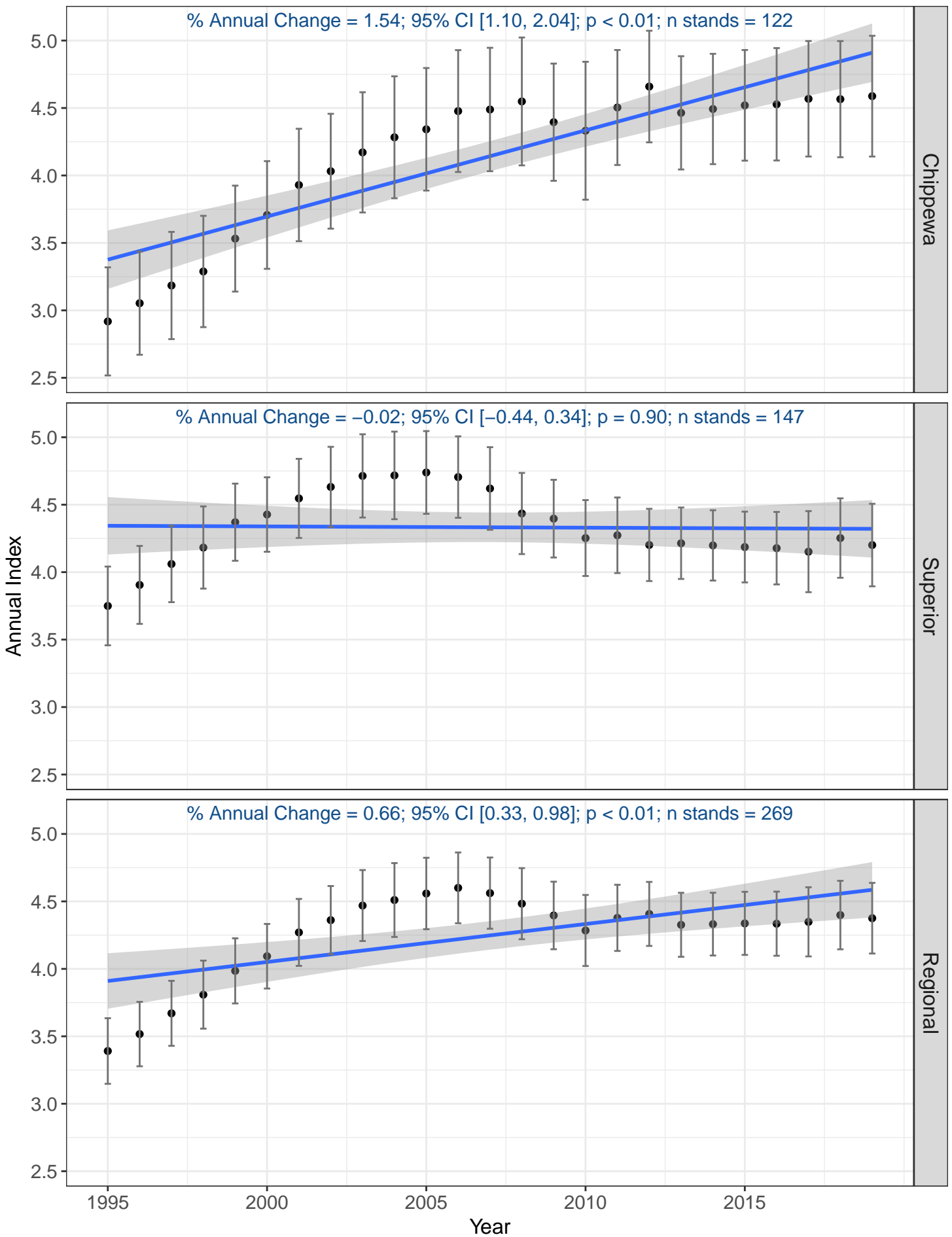
# Northern Waterthrush



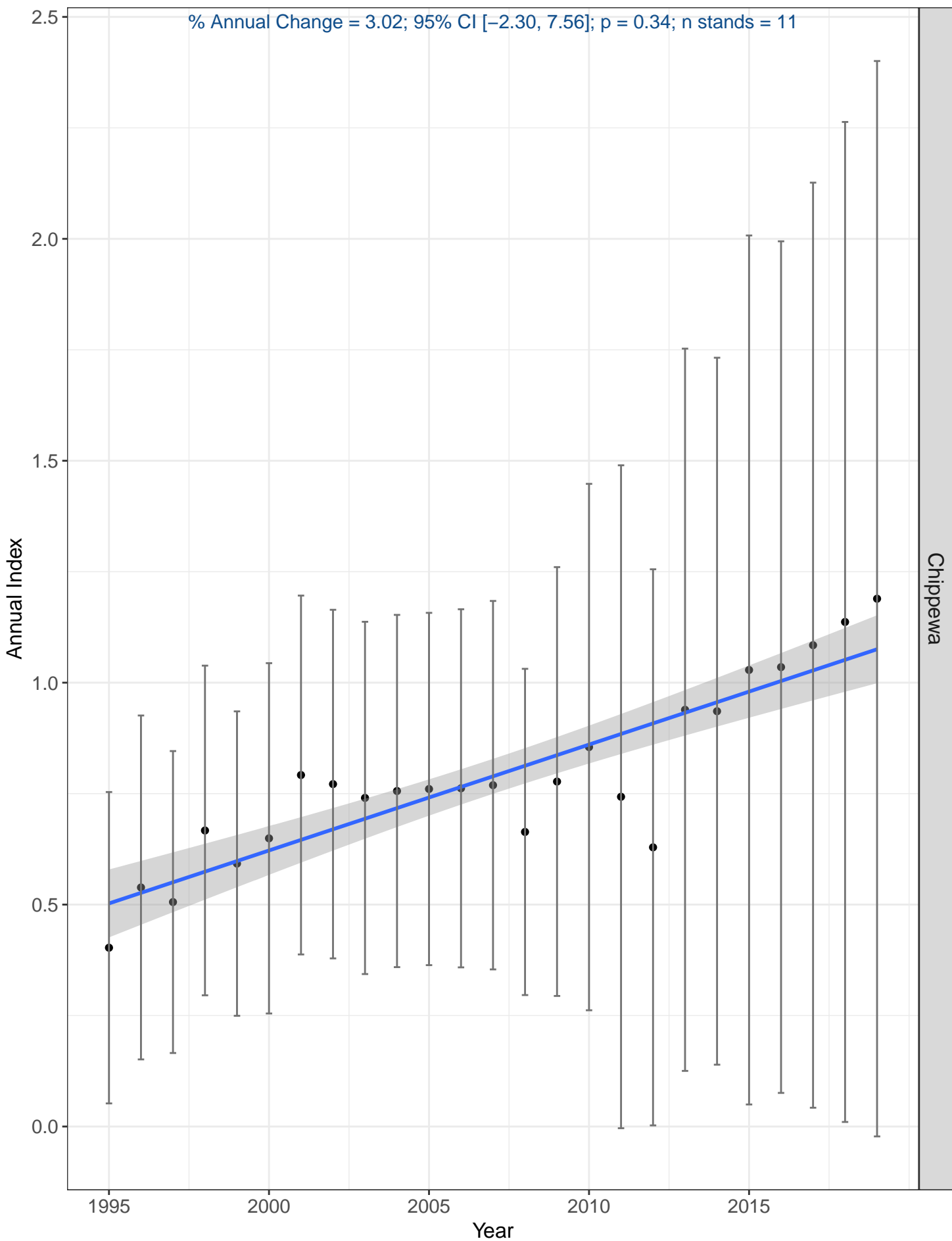
# Olive-sided Flycatcher



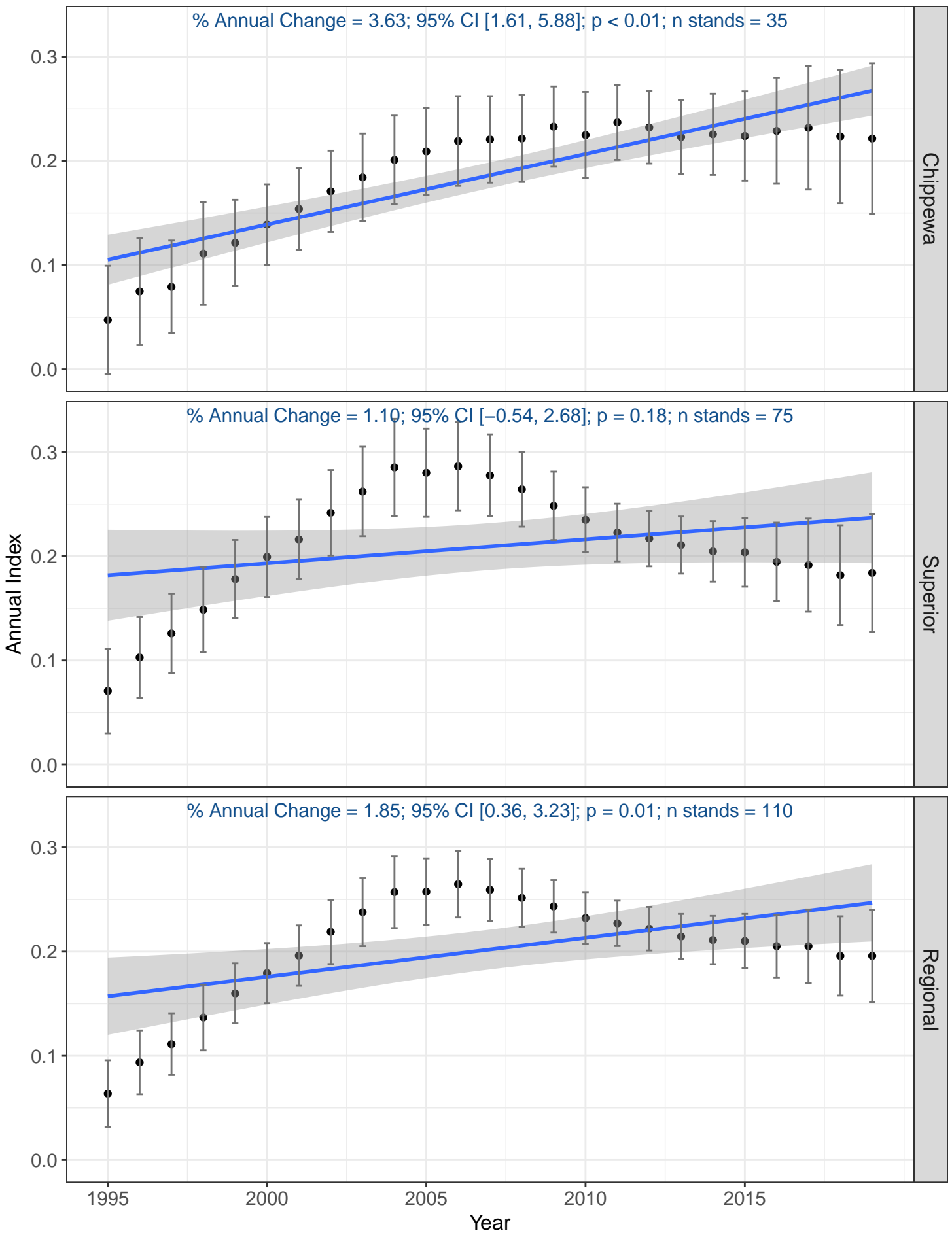
# Ovenbird



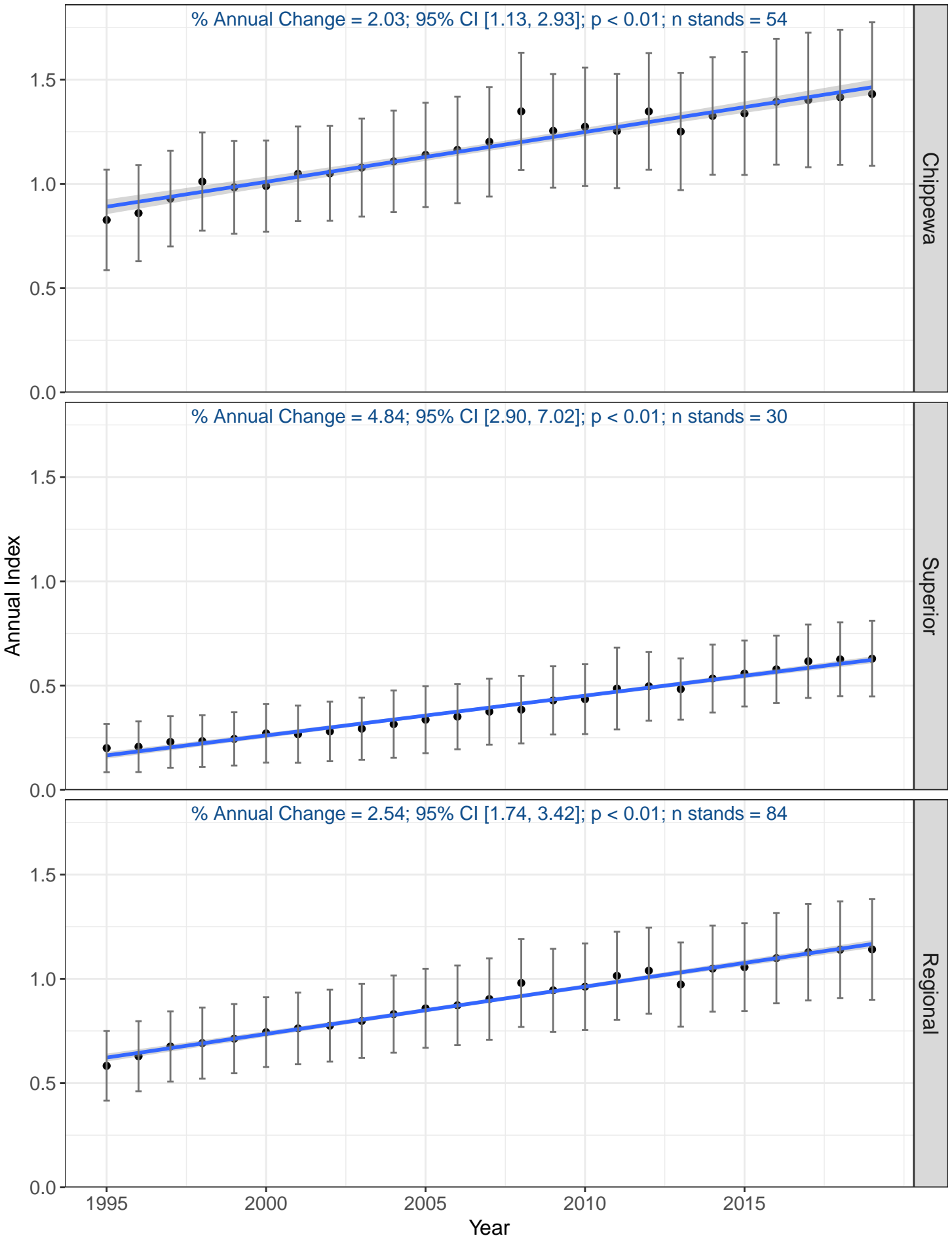
# Palm Warbler (Western)



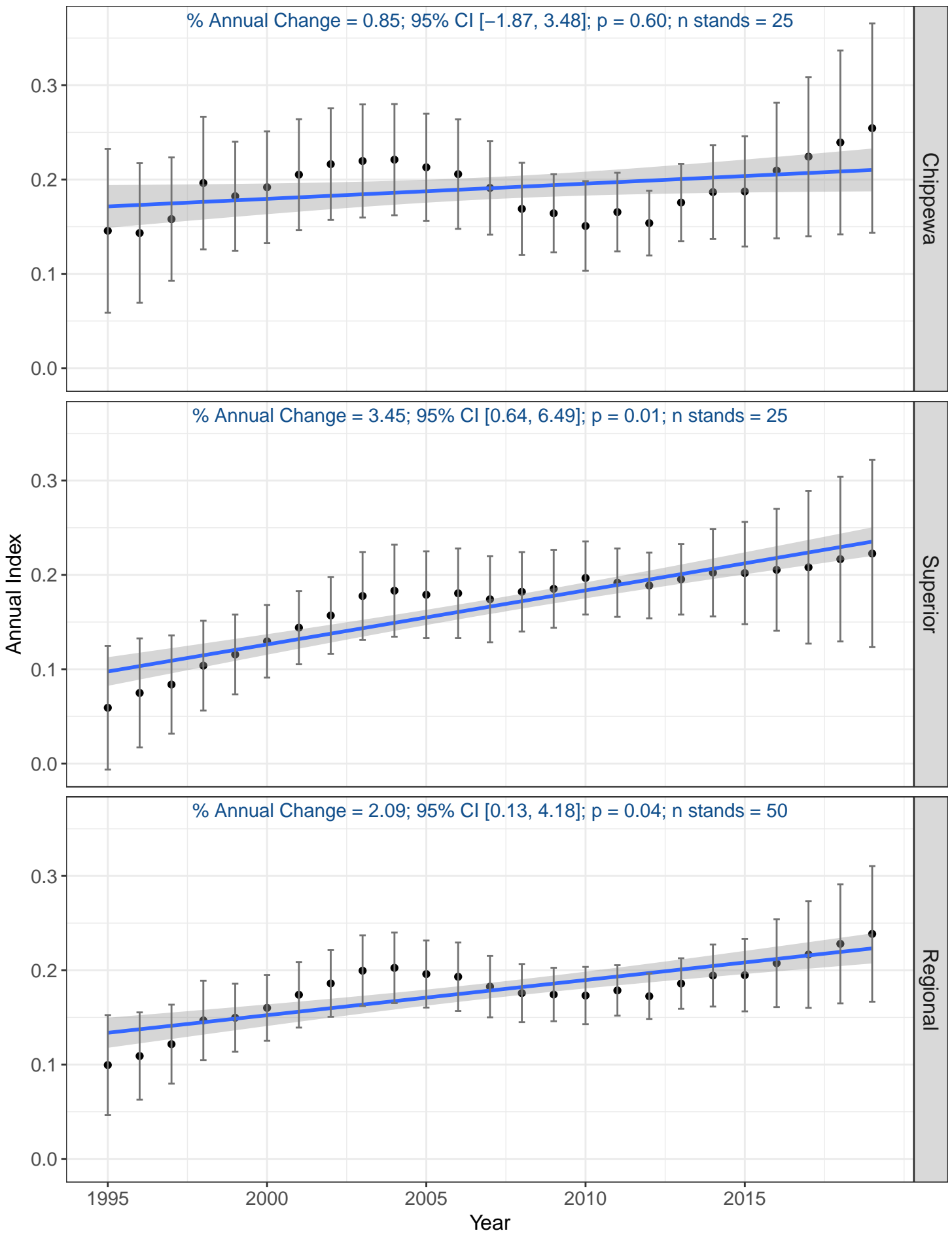
# Pileated Woodpecker



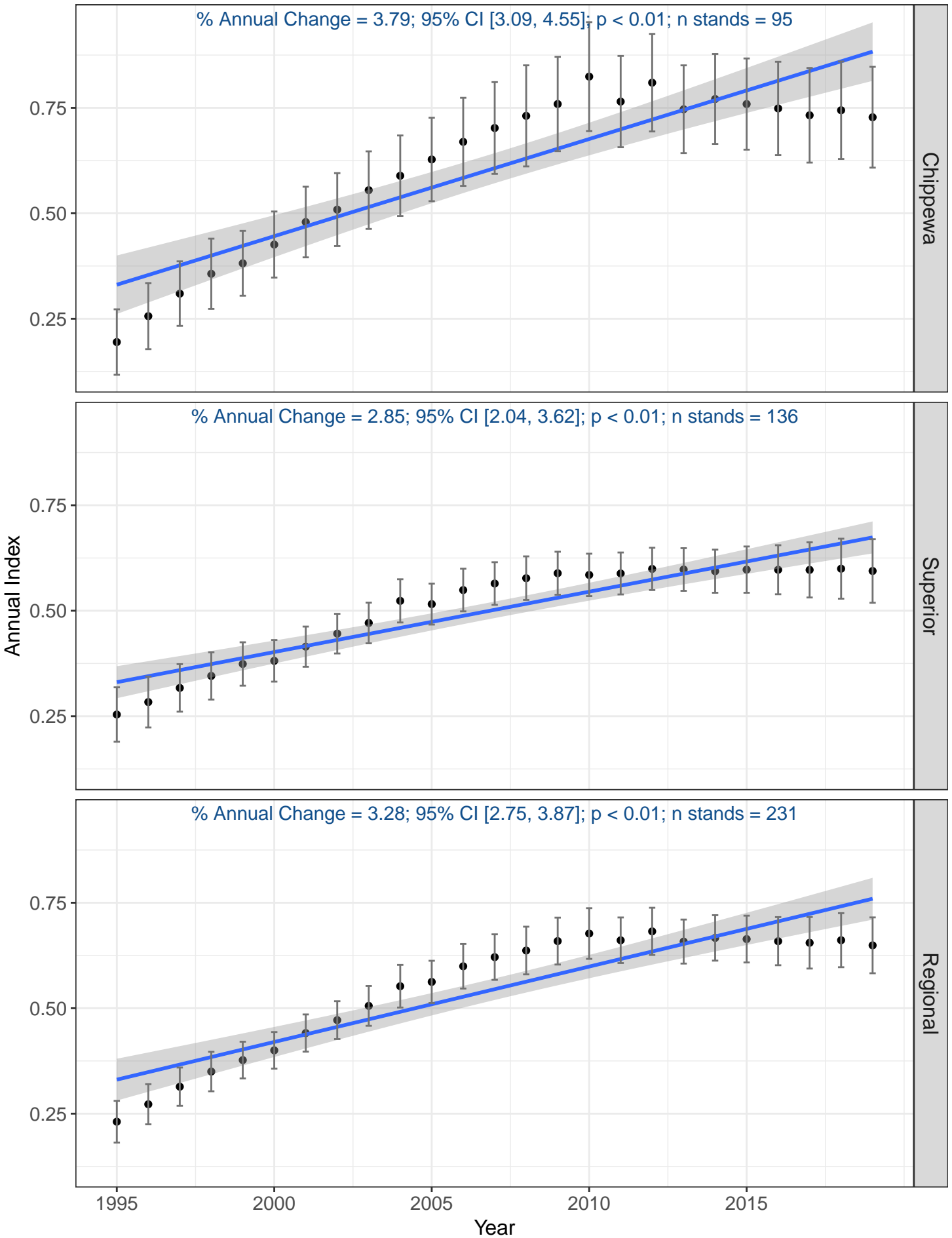
# Pine Warbler



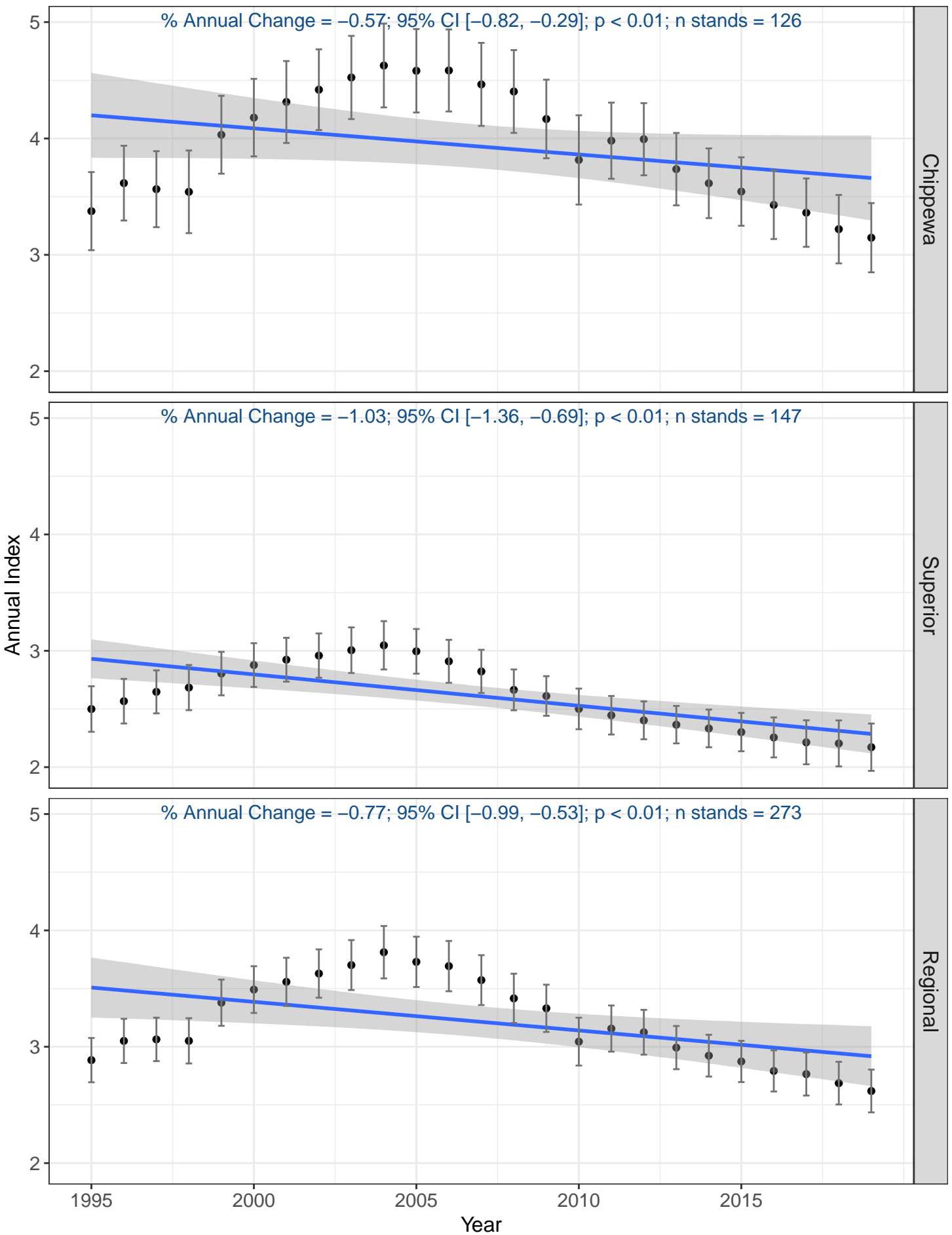
# Purple Finch



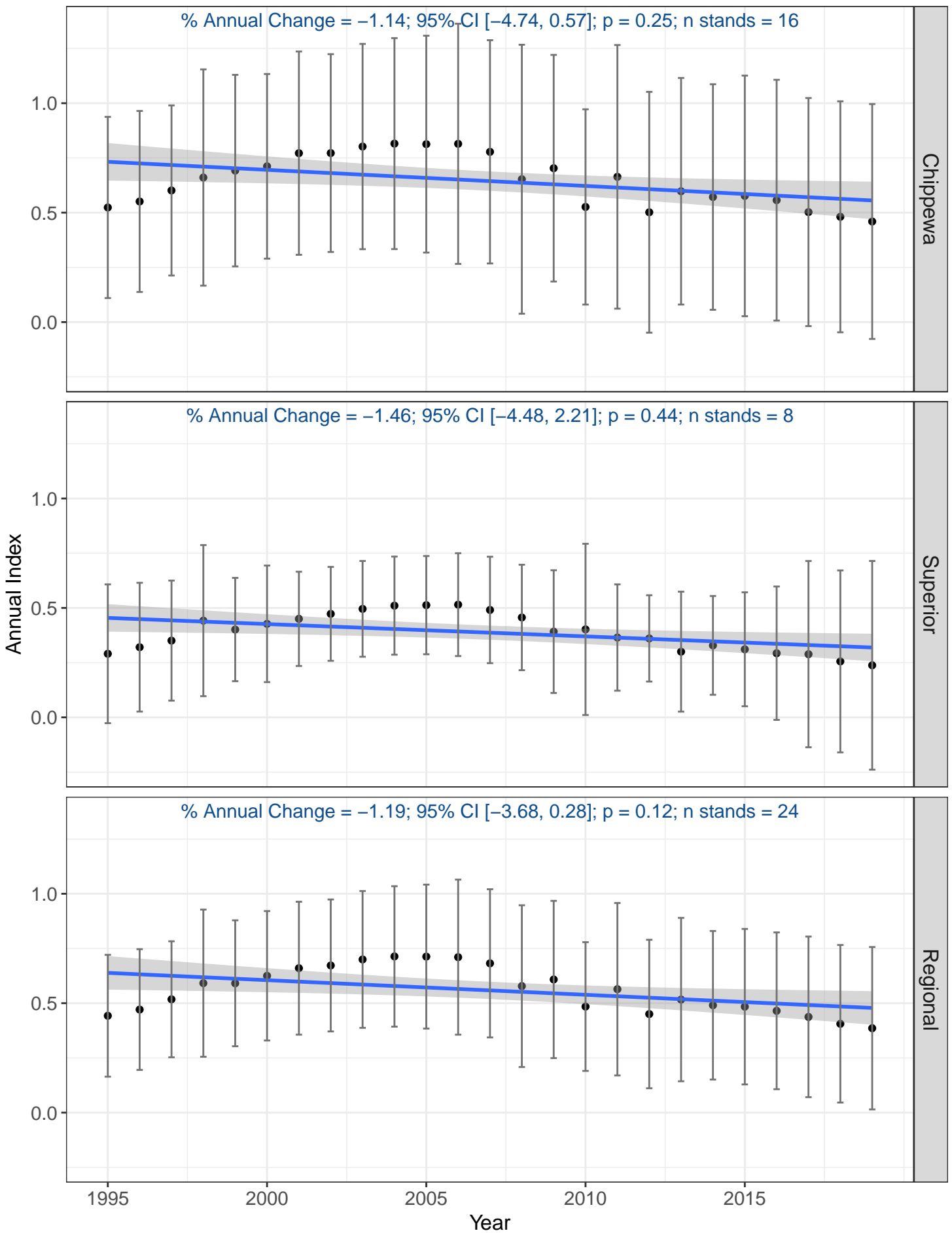
# Red-breasted Nuthatch



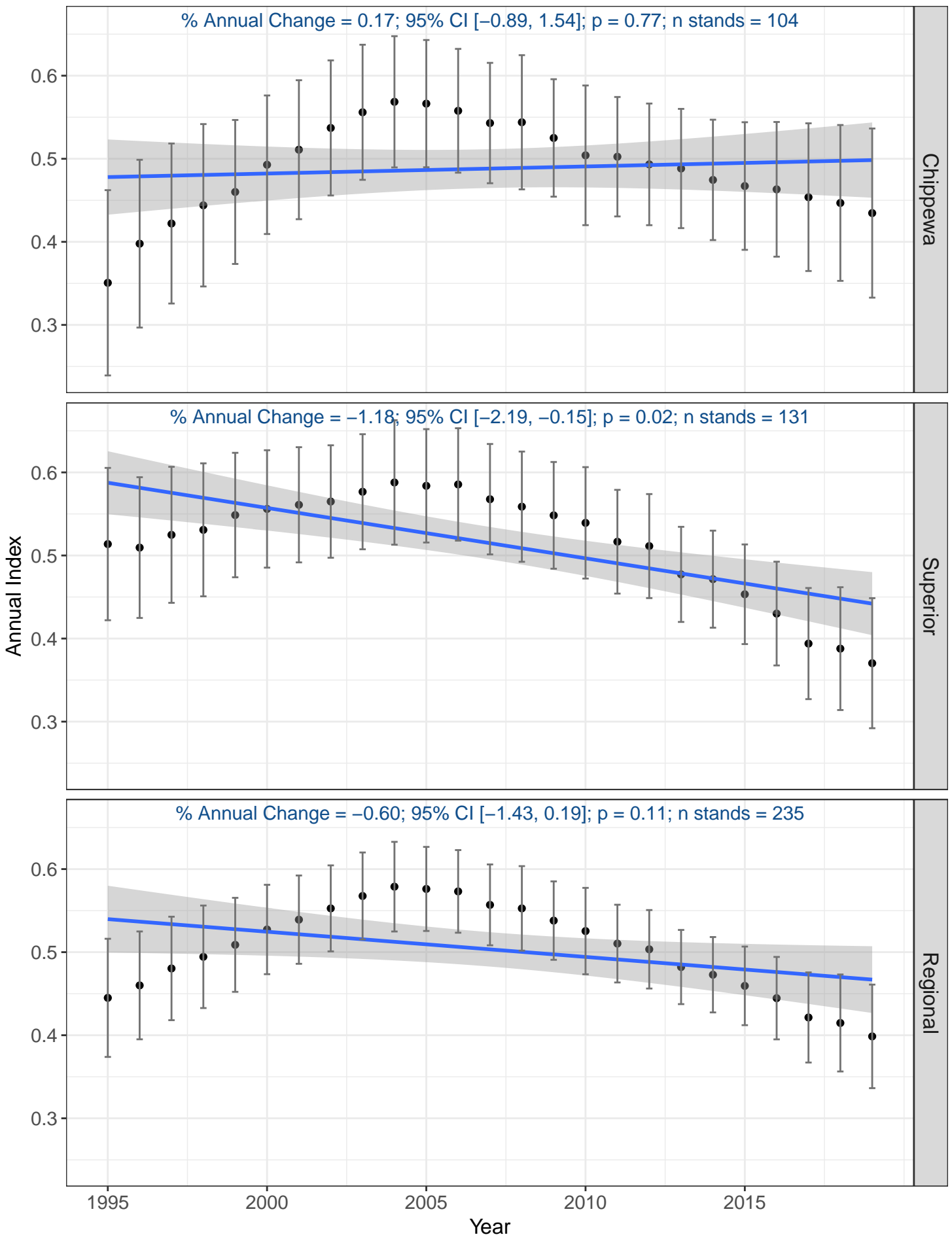
# Red-eyed Vireo



# Red-winged Blackbird

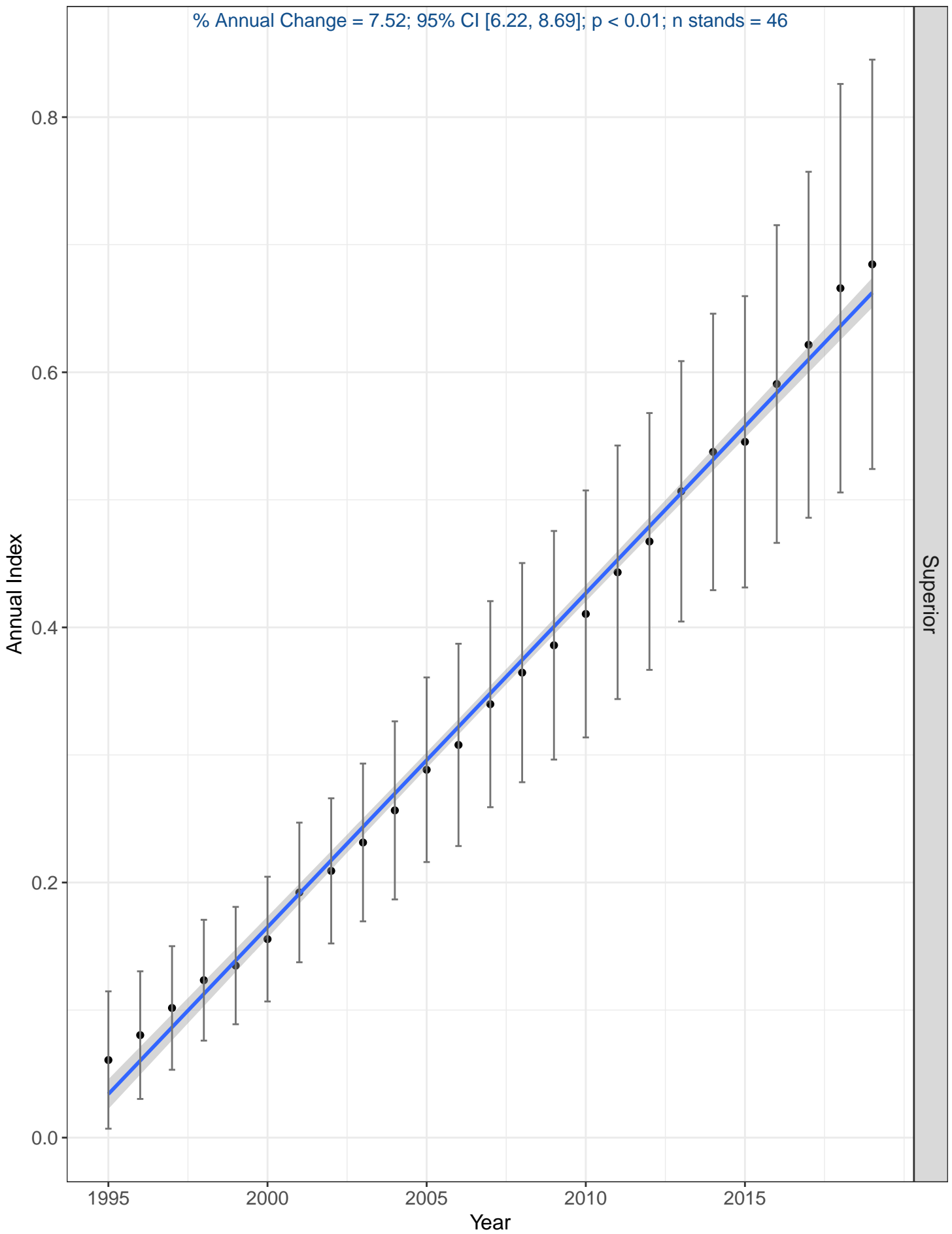


# Rose-breasted Grosbeak

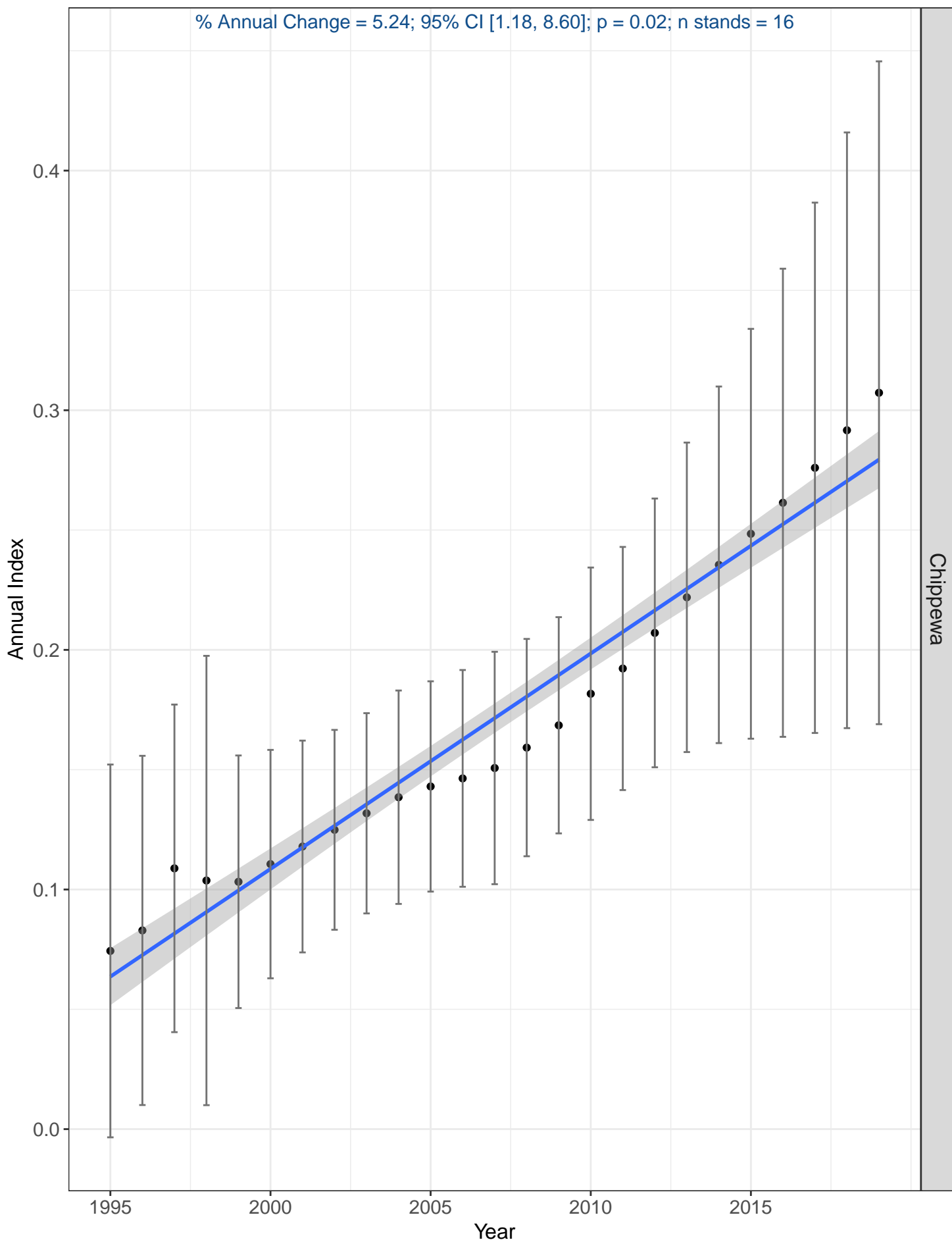


# Ruby-crowned Kinglet

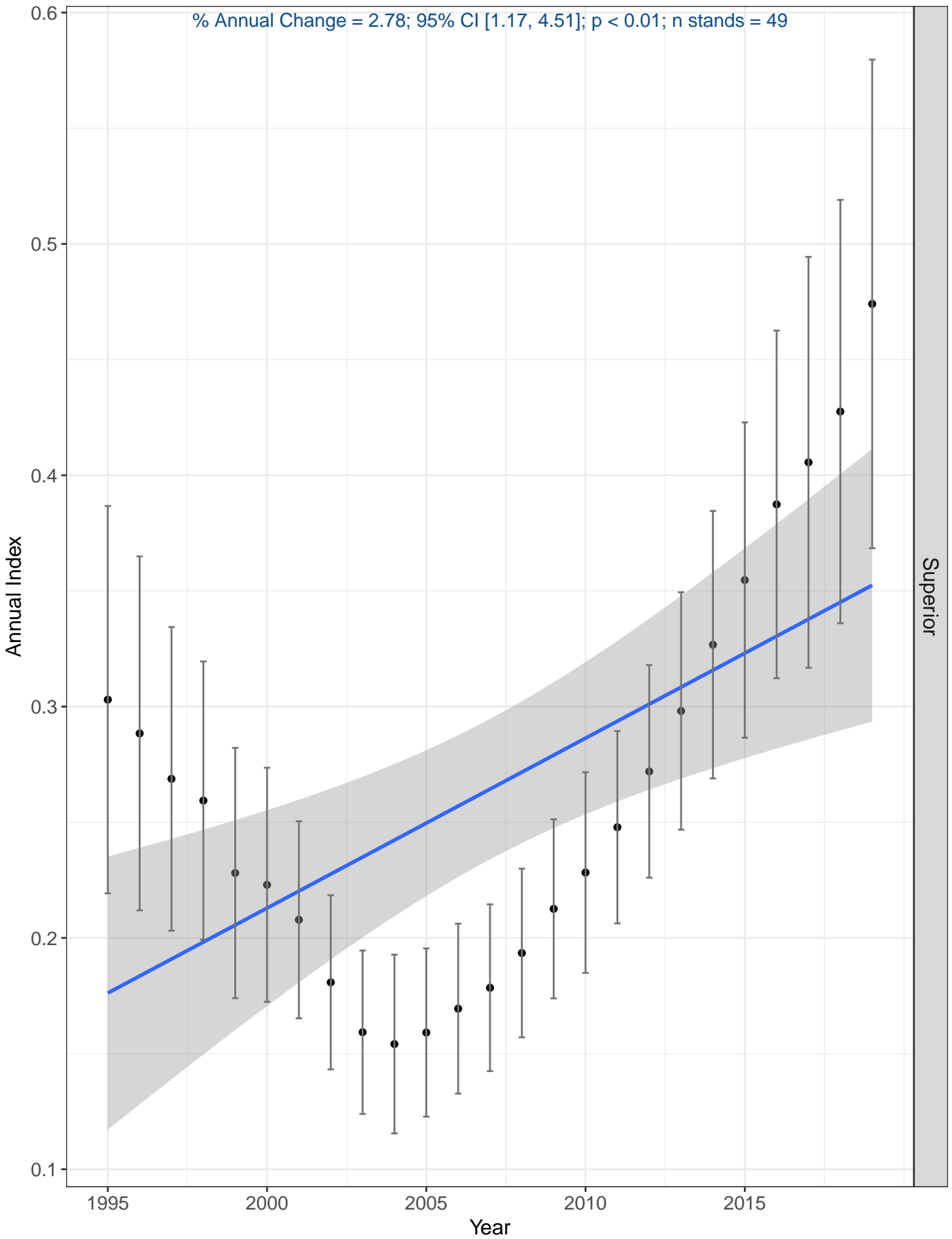
% Annual Change = 7.52; 95% CI [6.22, 8.69];  $p < 0.01$ ; n stands = 46



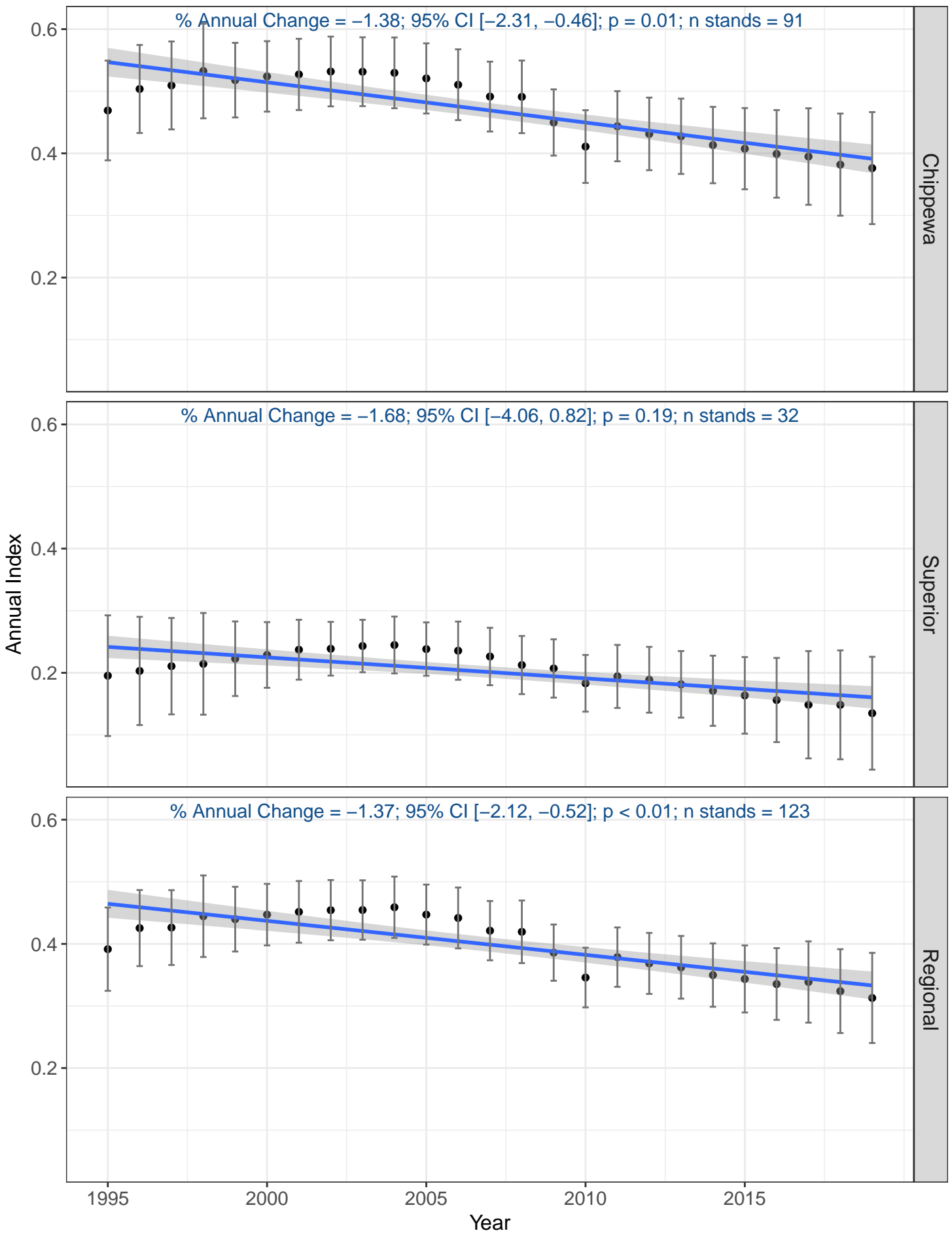
# Ruby-throated Hummingbird



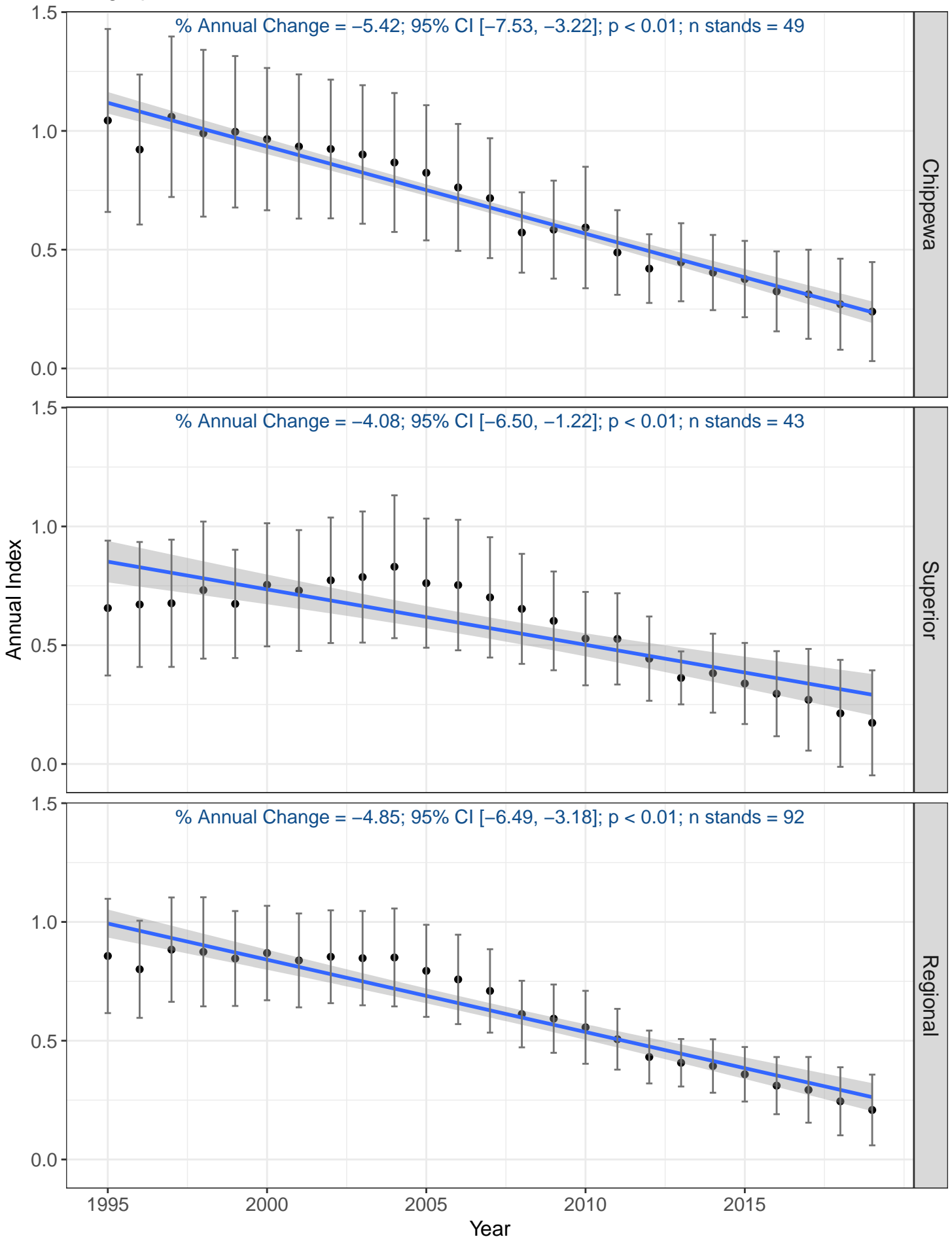
# Ruffed Grouse



# Scarlet Tanager

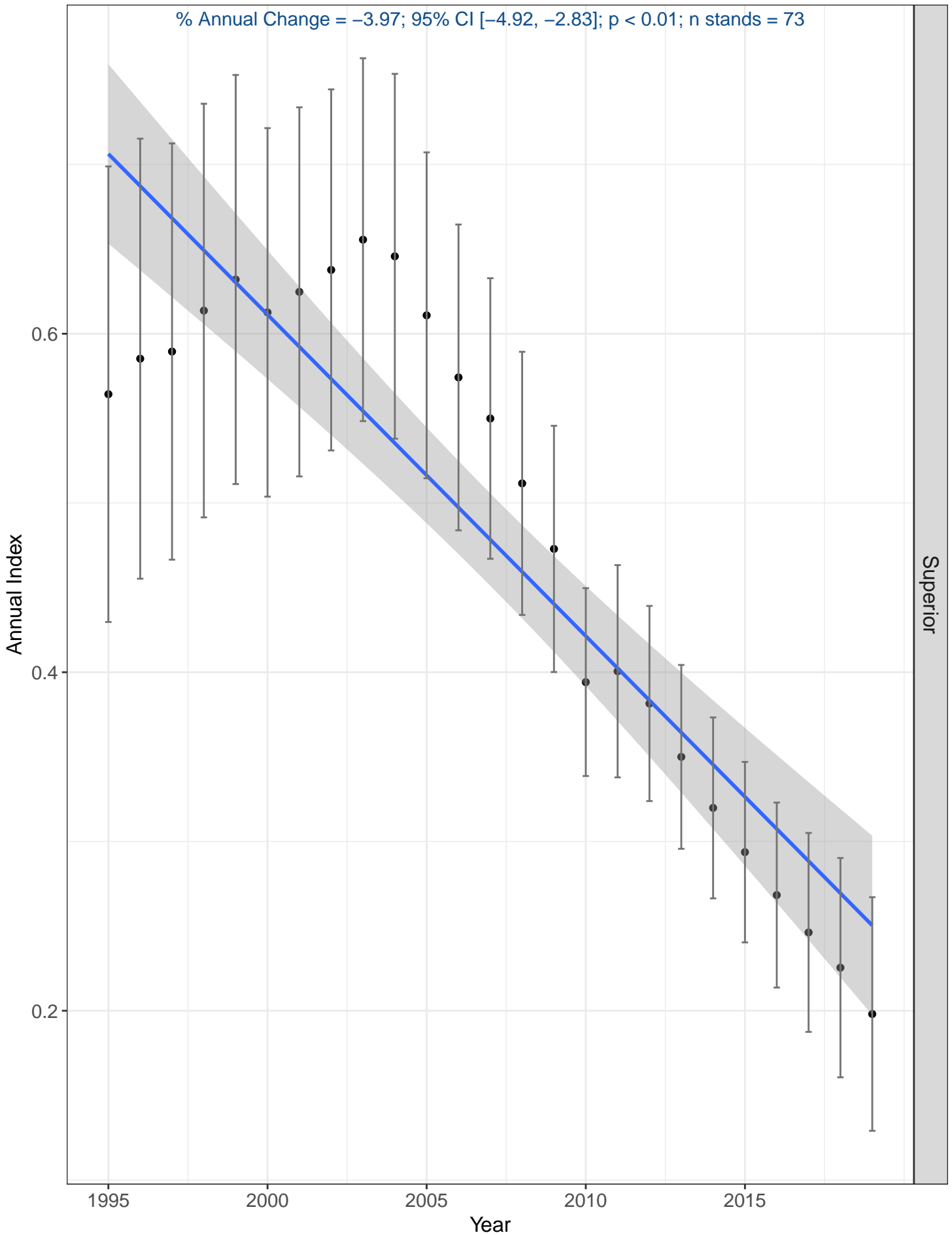


# Song Sparrow

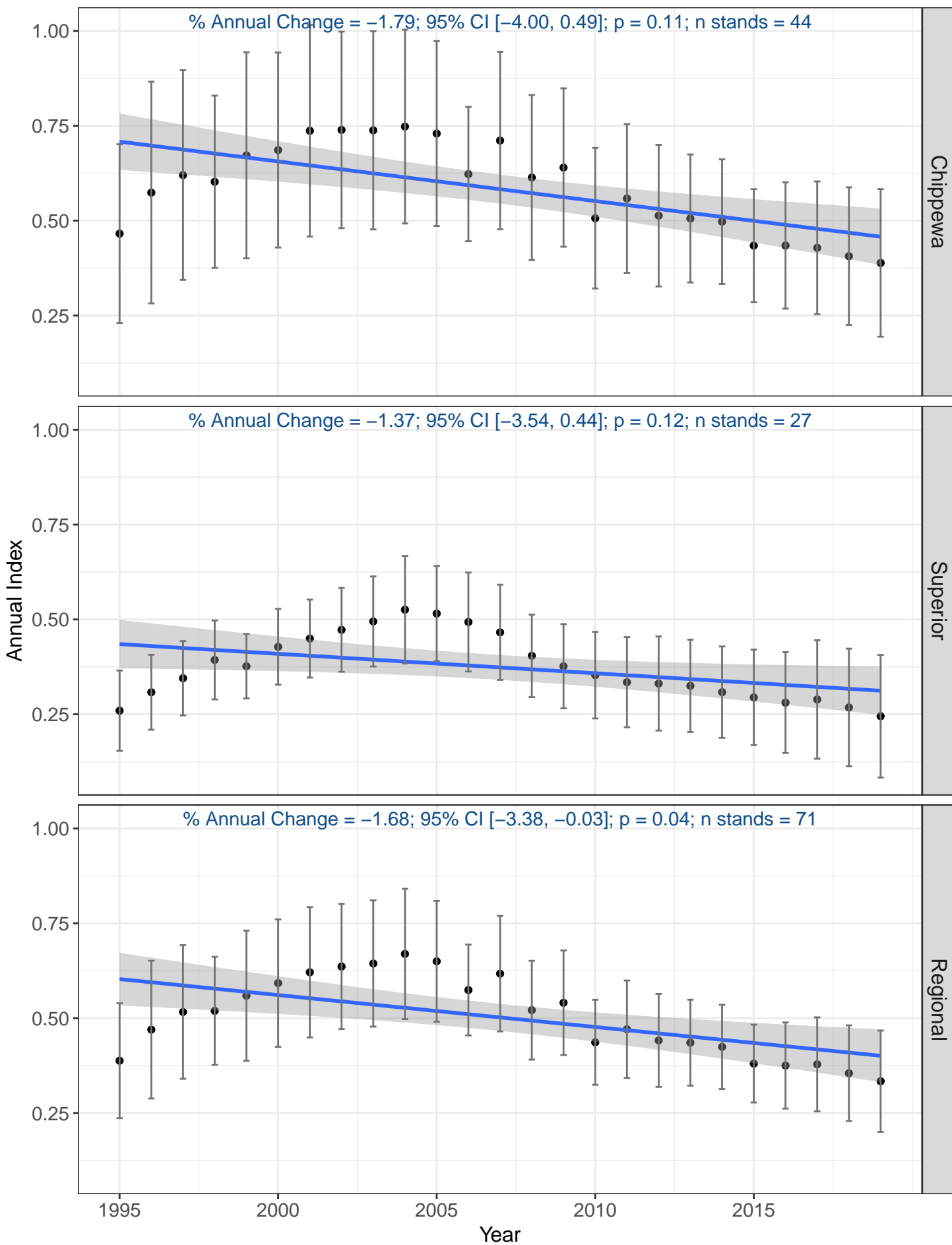


# Swainson's Thrush

% Annual Change =  $-3.97$ ; 95% CI  $[-4.92, -2.83]$ ;  $p < 0.01$ ; n stands = 73

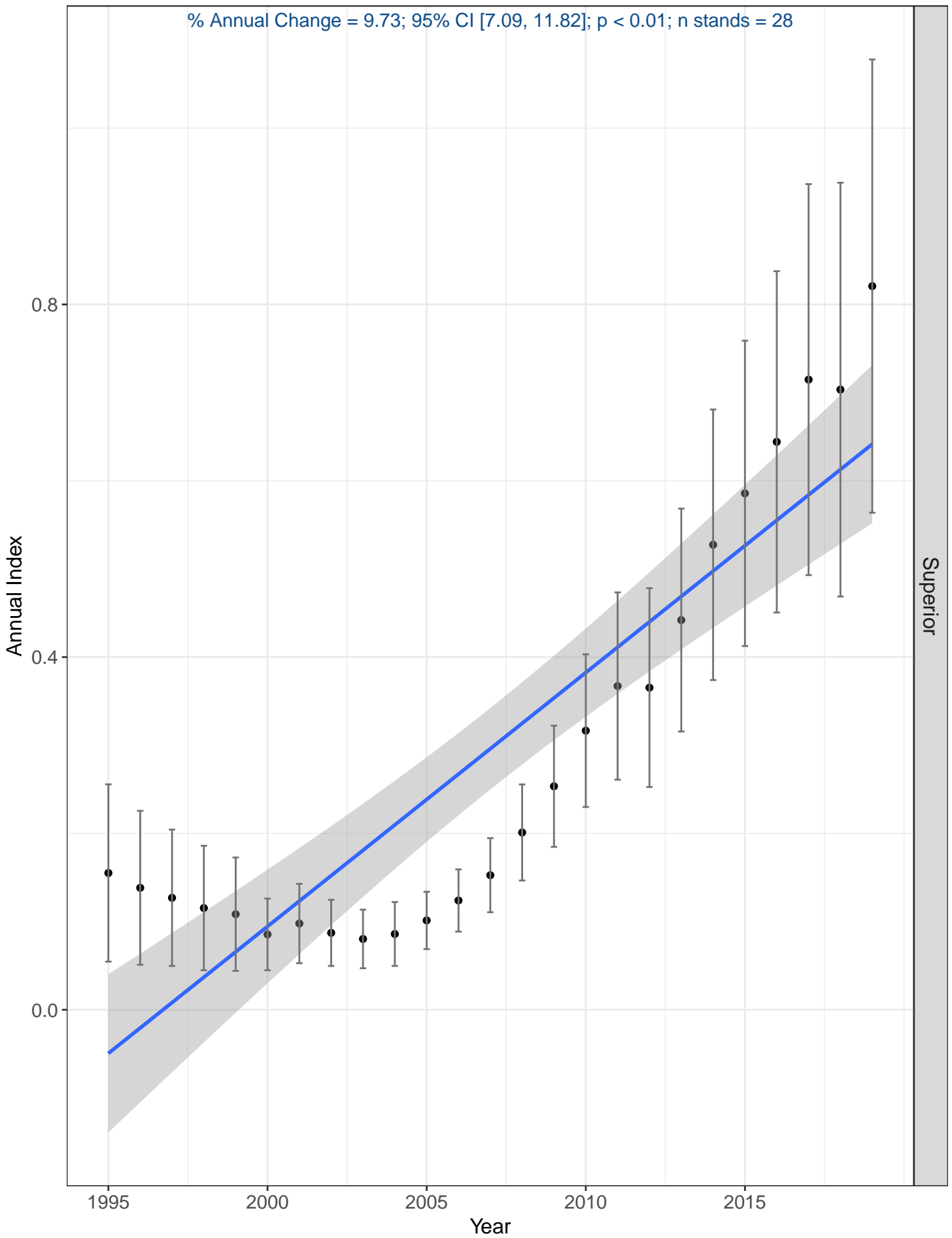


# Swamp Sparrow

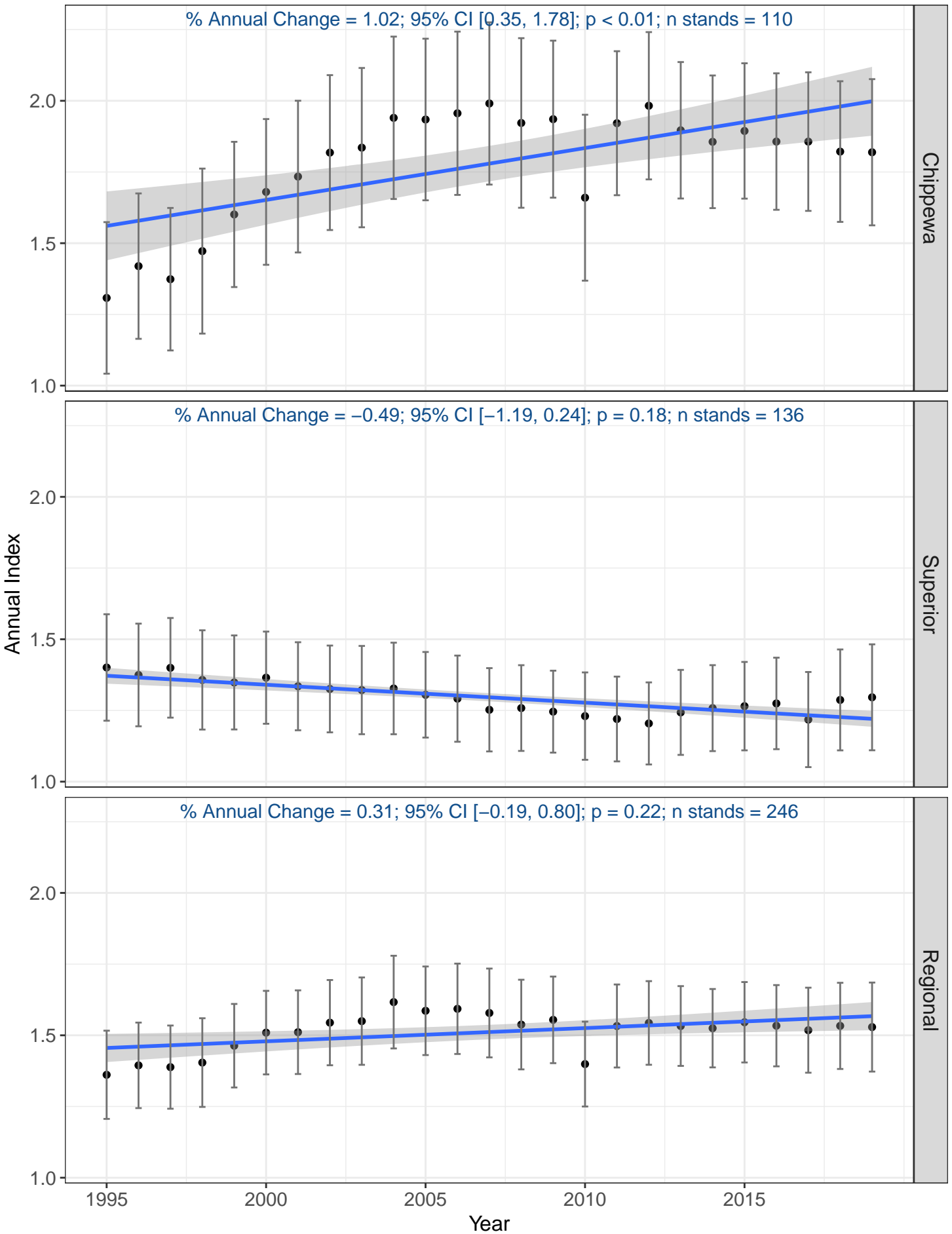


# Tennessee Warbler

% Annual Change = 9.73; 95% CI [7.09, 11.82];  $p < 0.01$ ; n stands = 28

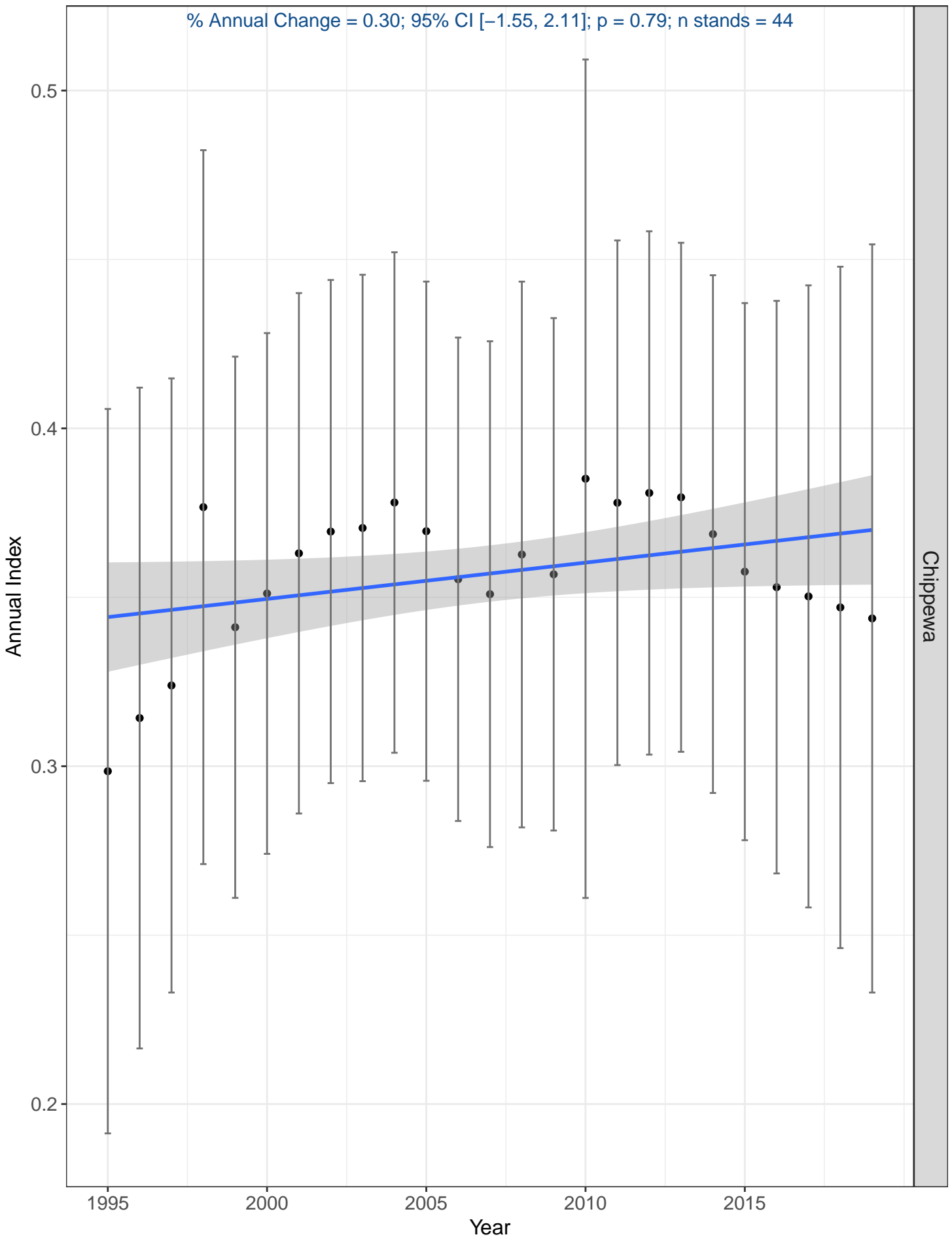


# Veery

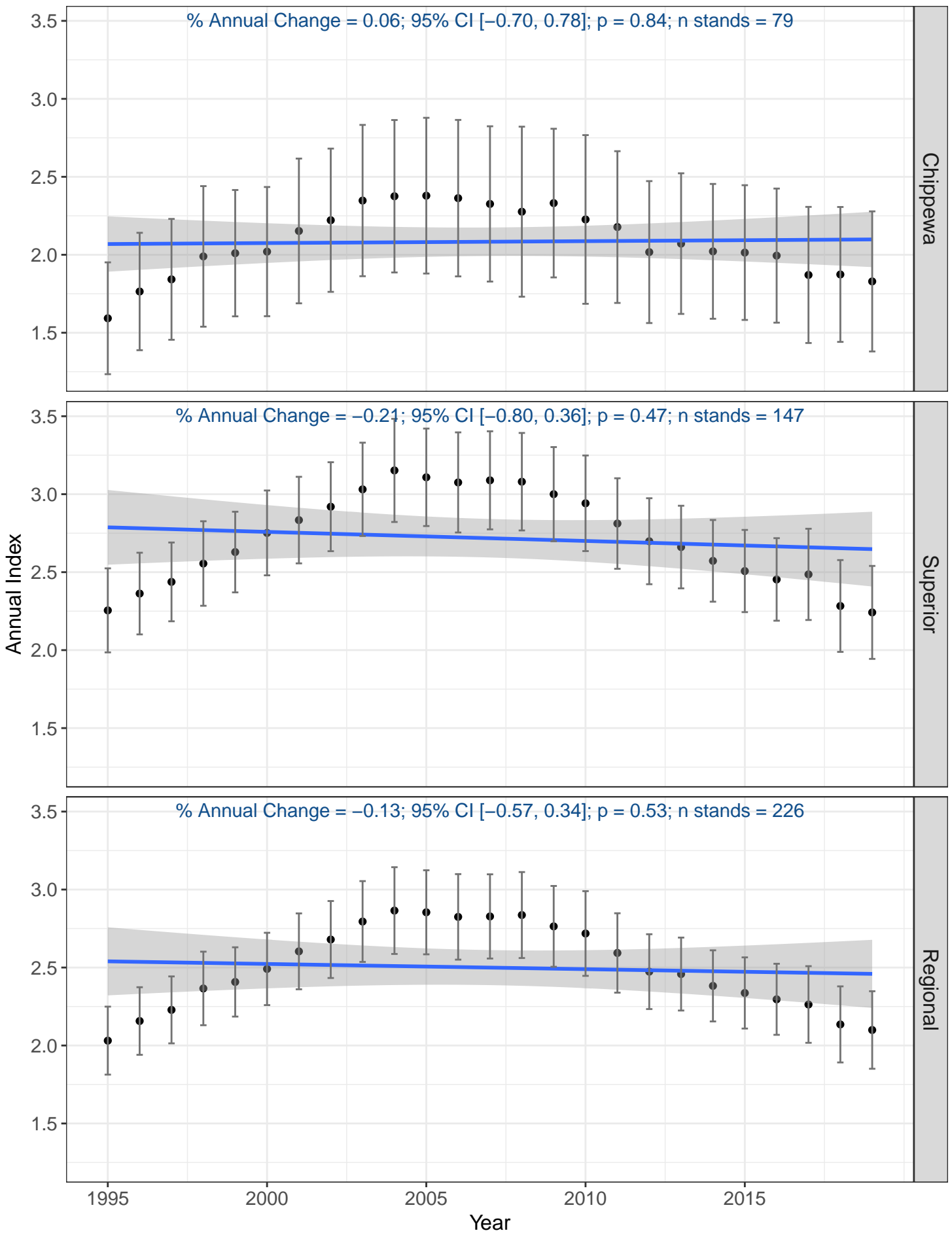


# White-breasted Nuthatch

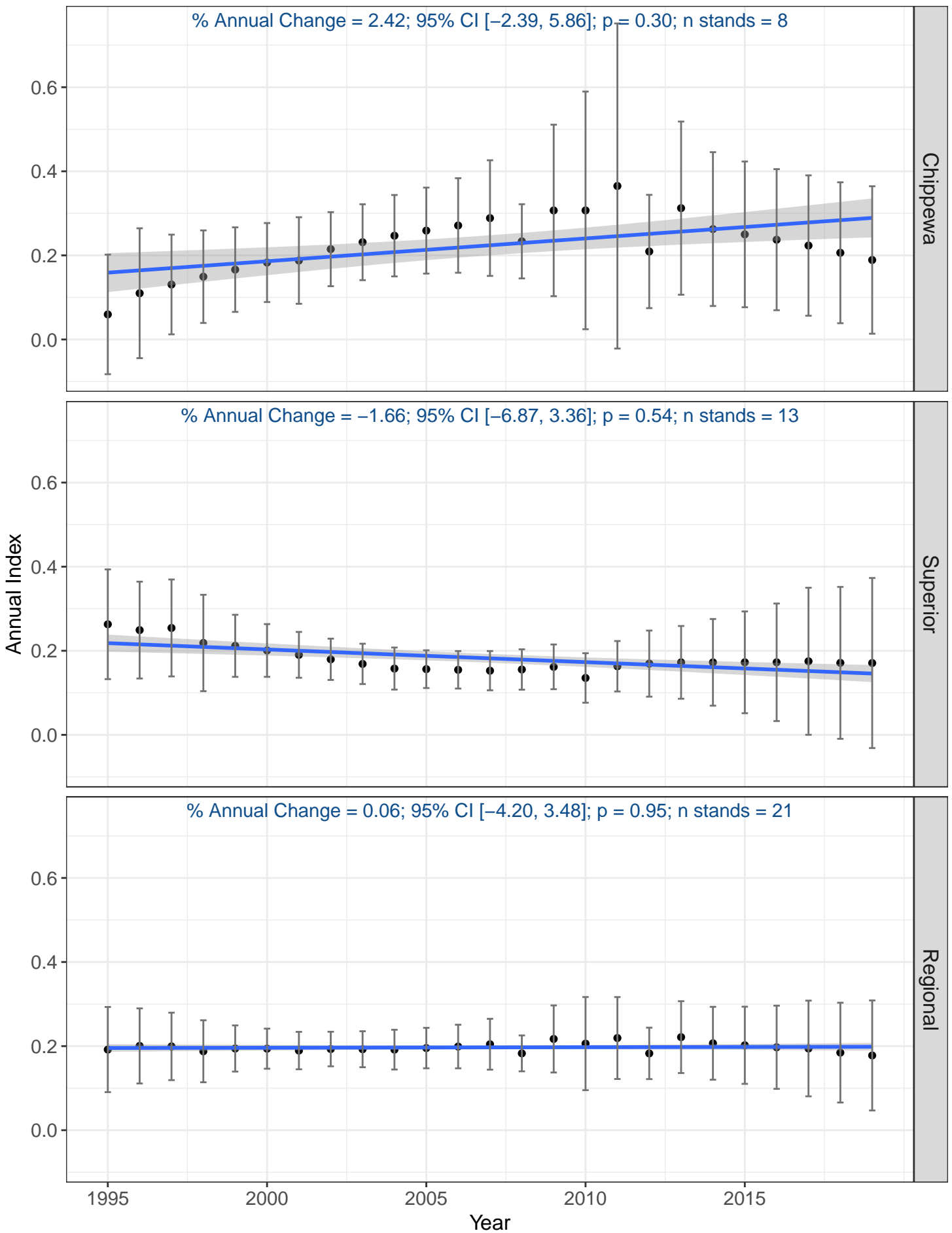
% Annual Change = 0.30; 95% CI [-1.55, 2.11]; p = 0.79; n stands = 44



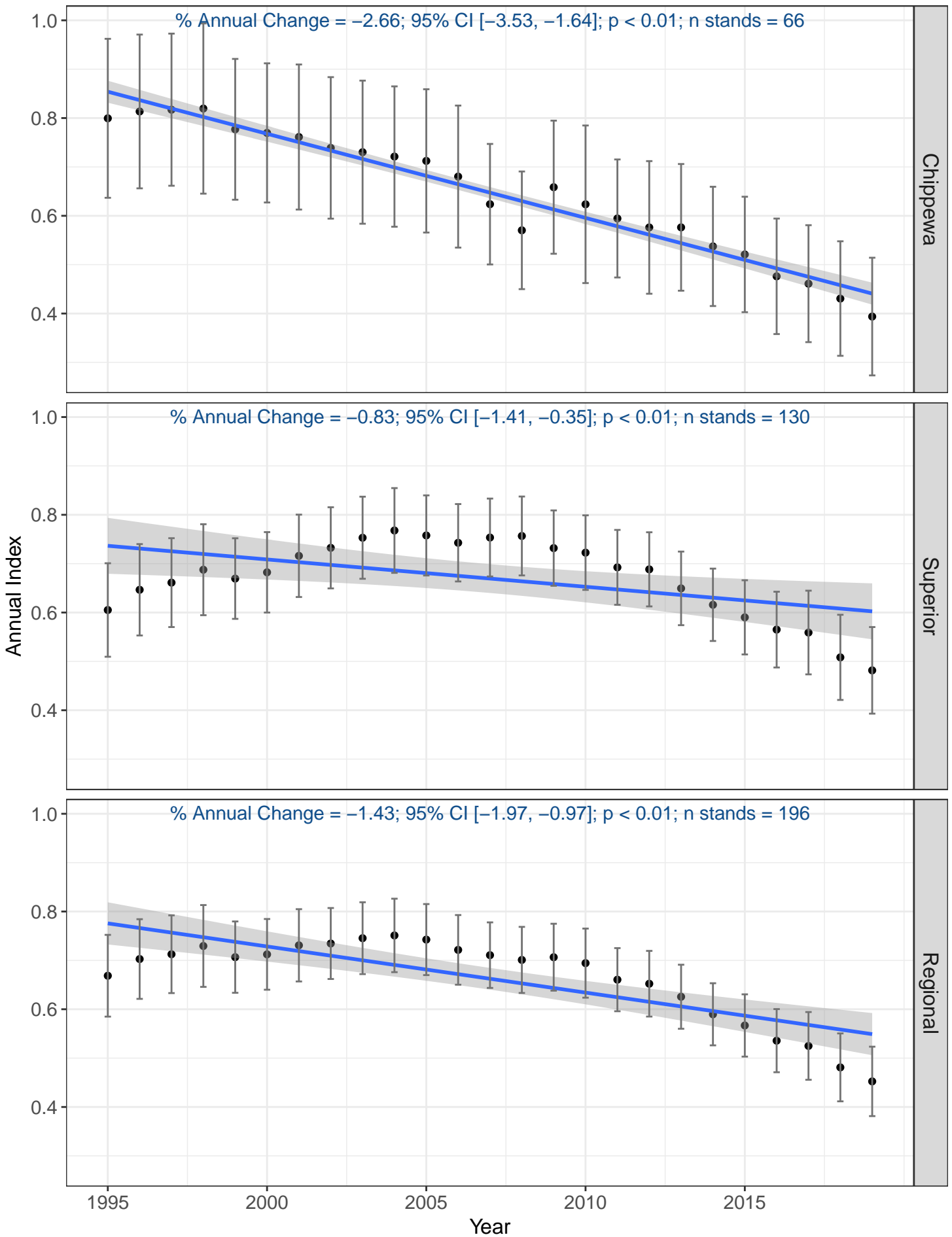
# White-throated Sparrow



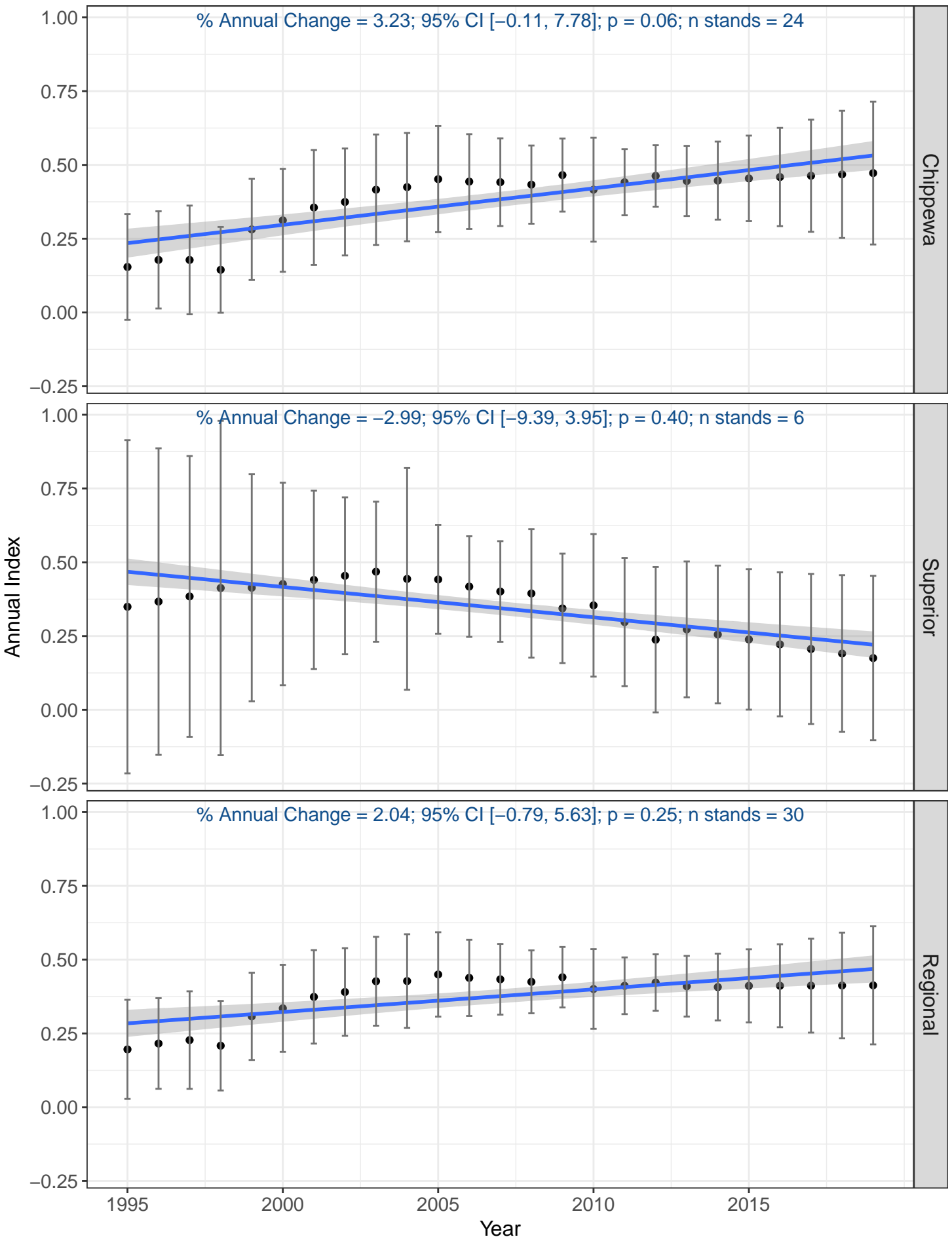
# Wilson's Snipe



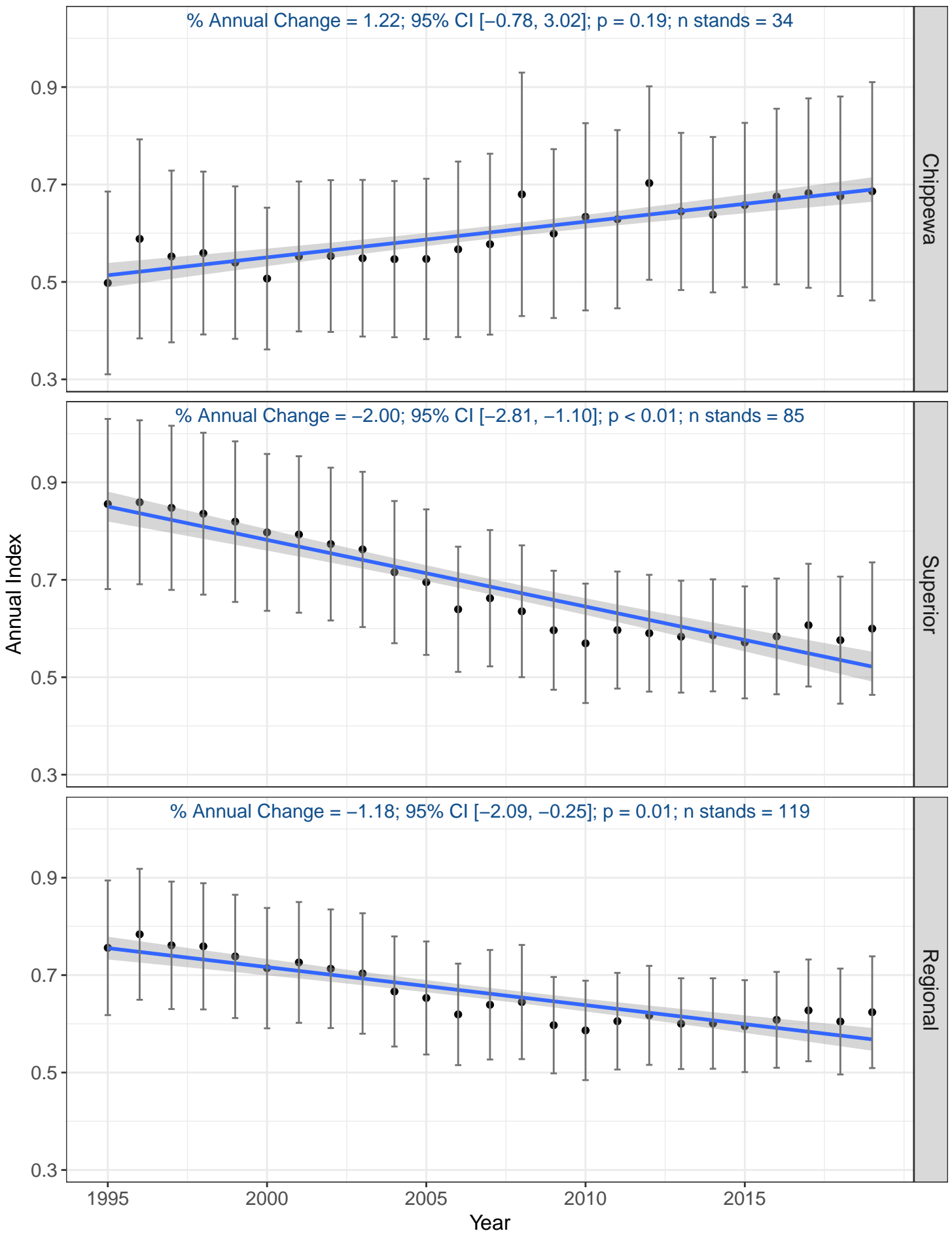
# Winter Wren



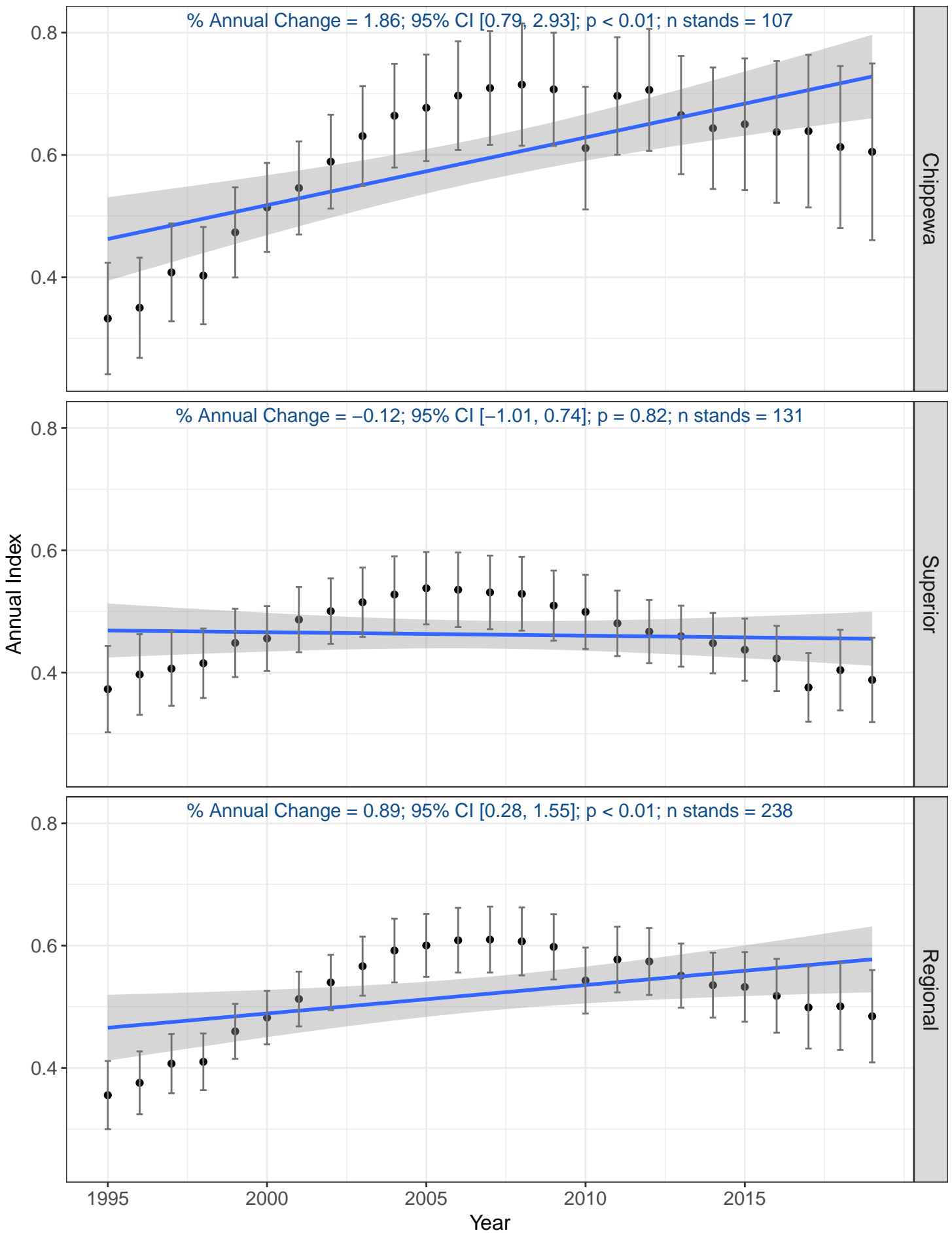
# Wood Thrush



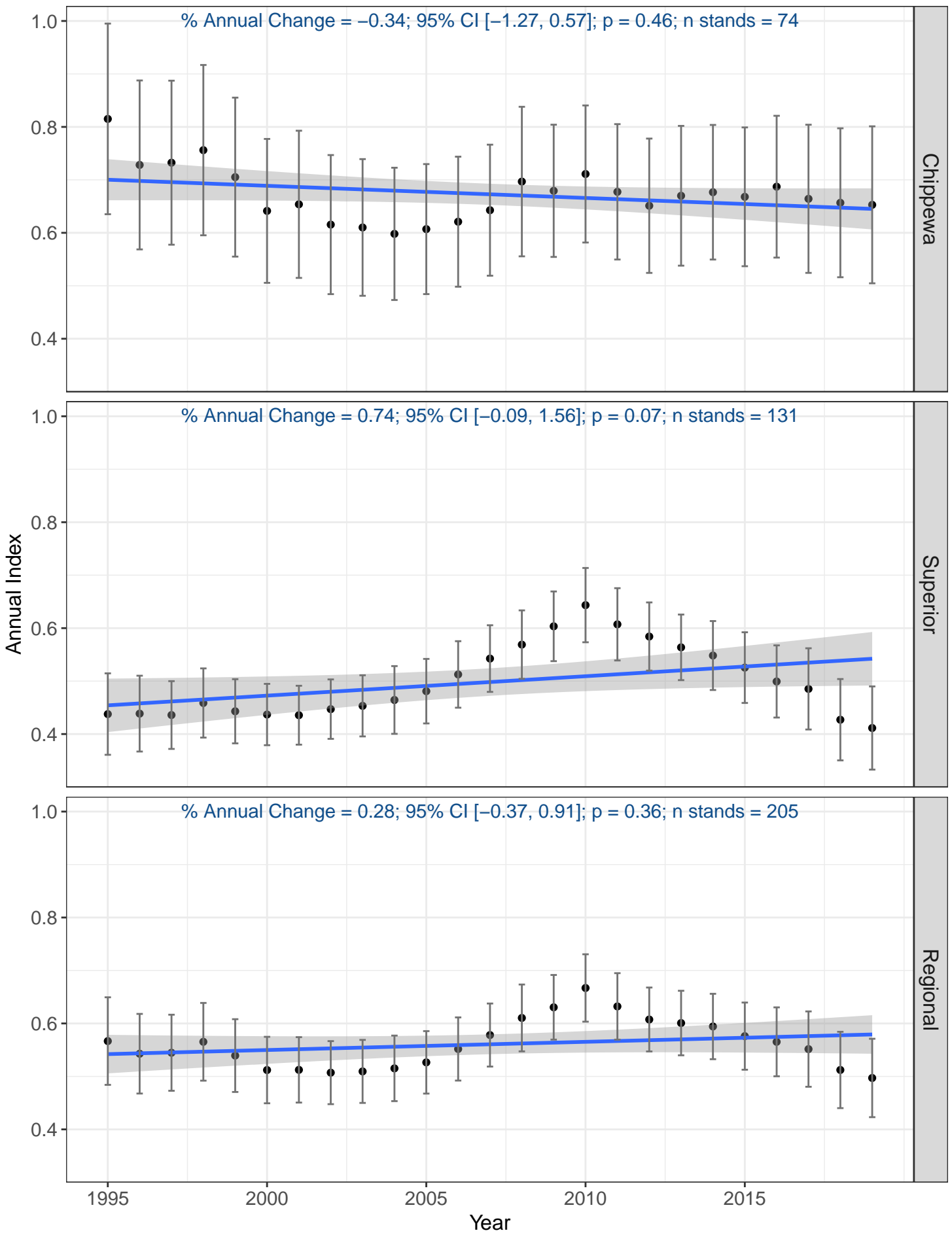
# Yellow-bellied Flycatcher



# Yellow-bellied Sapsucker

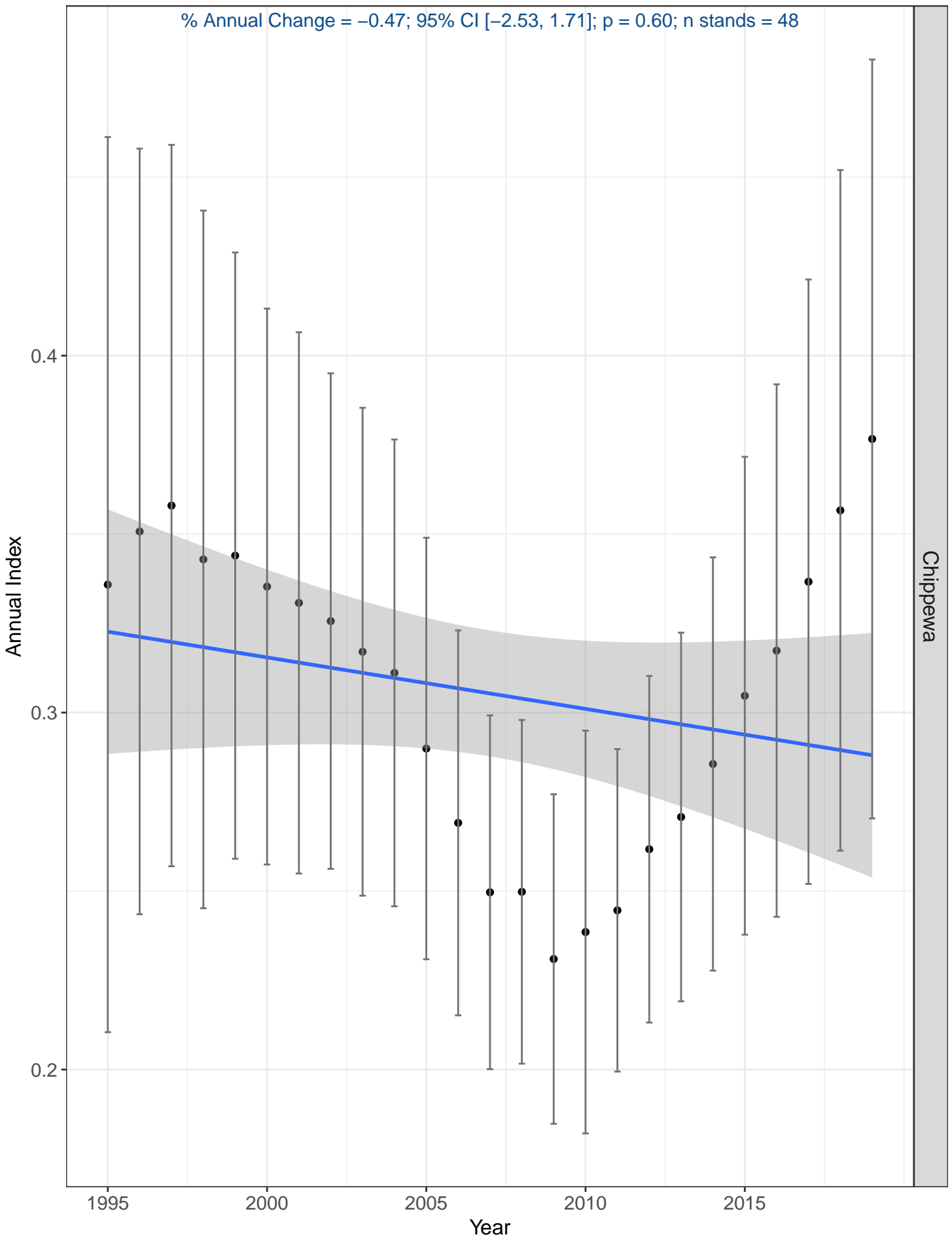


# Yellow-rumped Warbler (Myrtle)



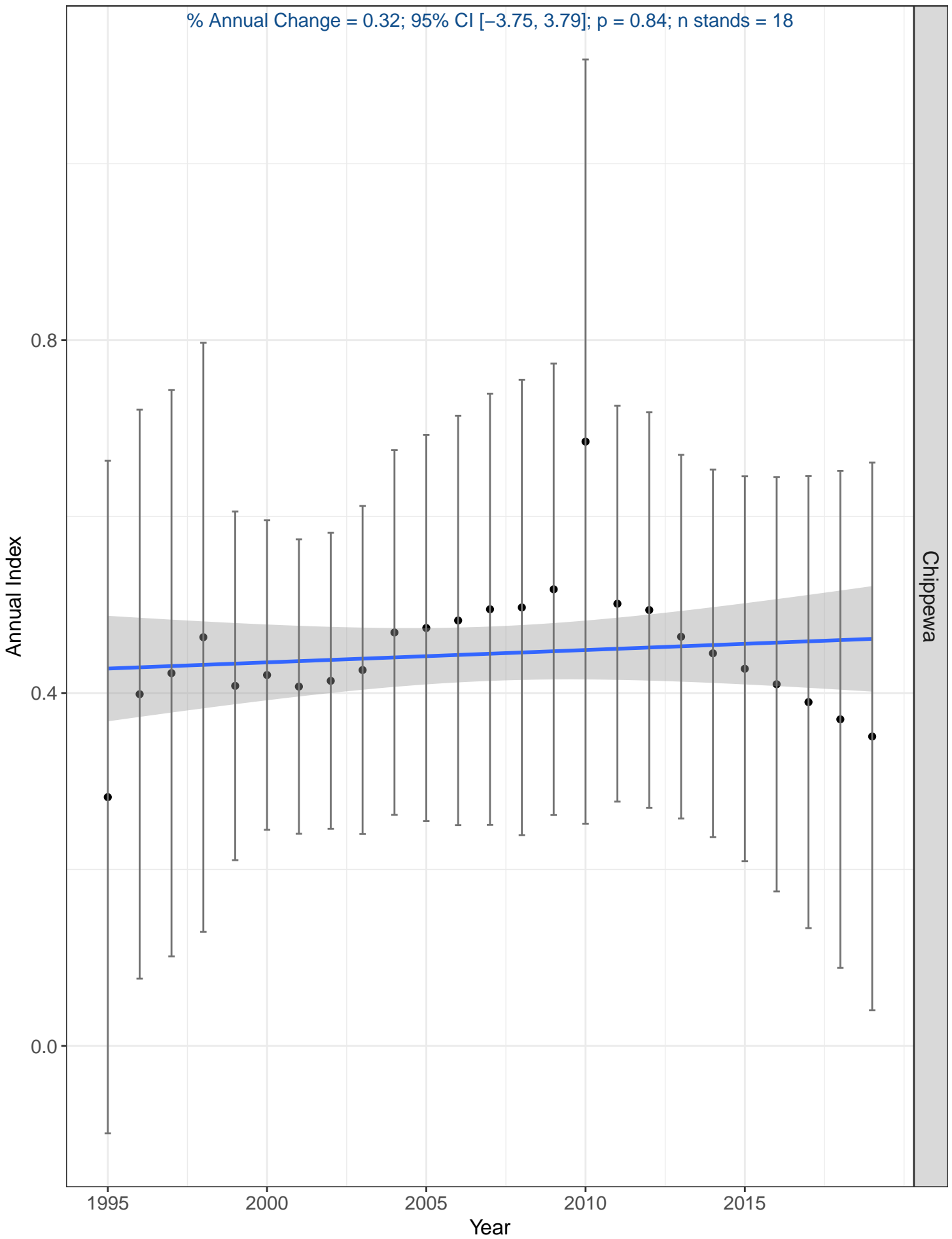
# Yellow-throated Vireo

% Annual Change = -0.47; 95% CI [-2.53, 1.71]; p = 0.60; n stands = 48

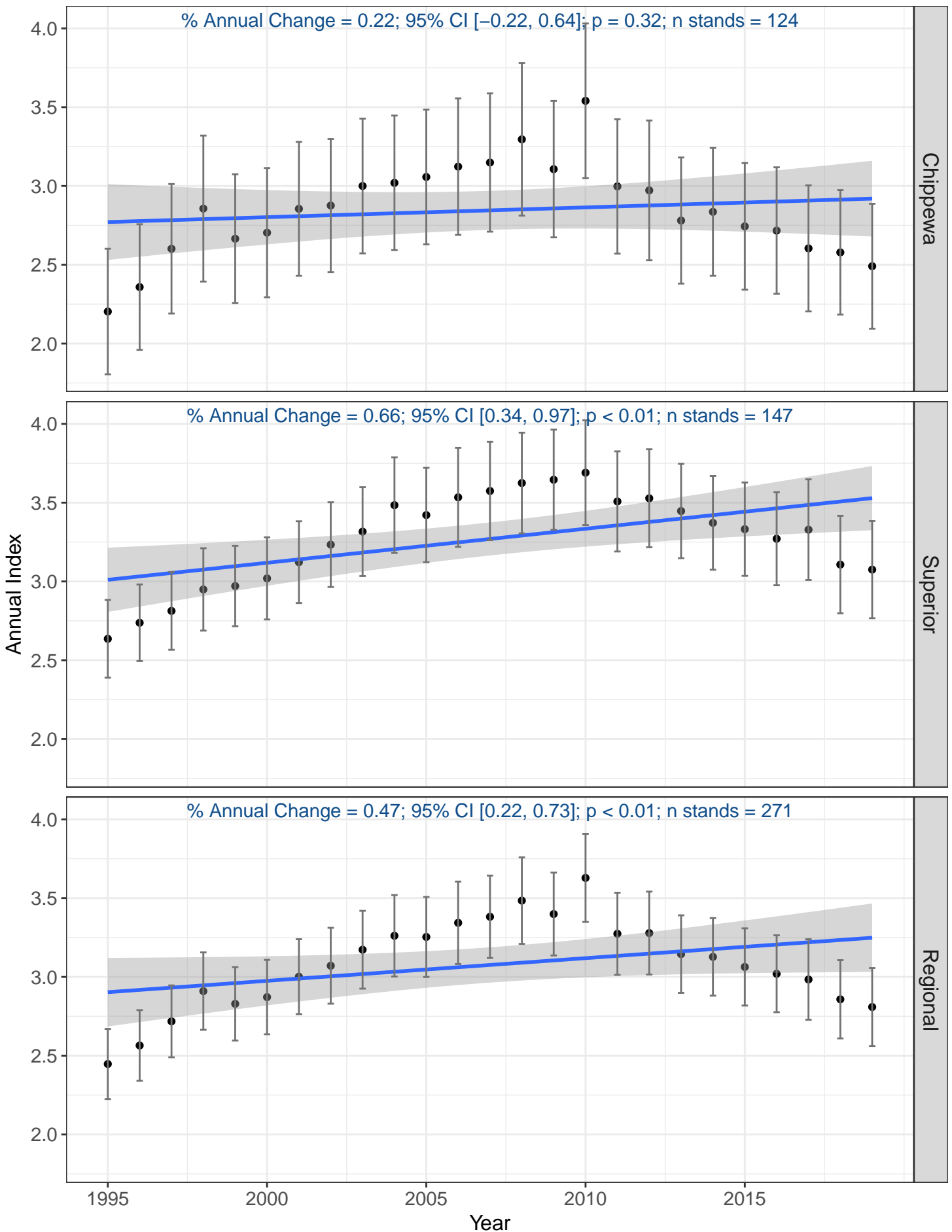


# Yellow Warbler

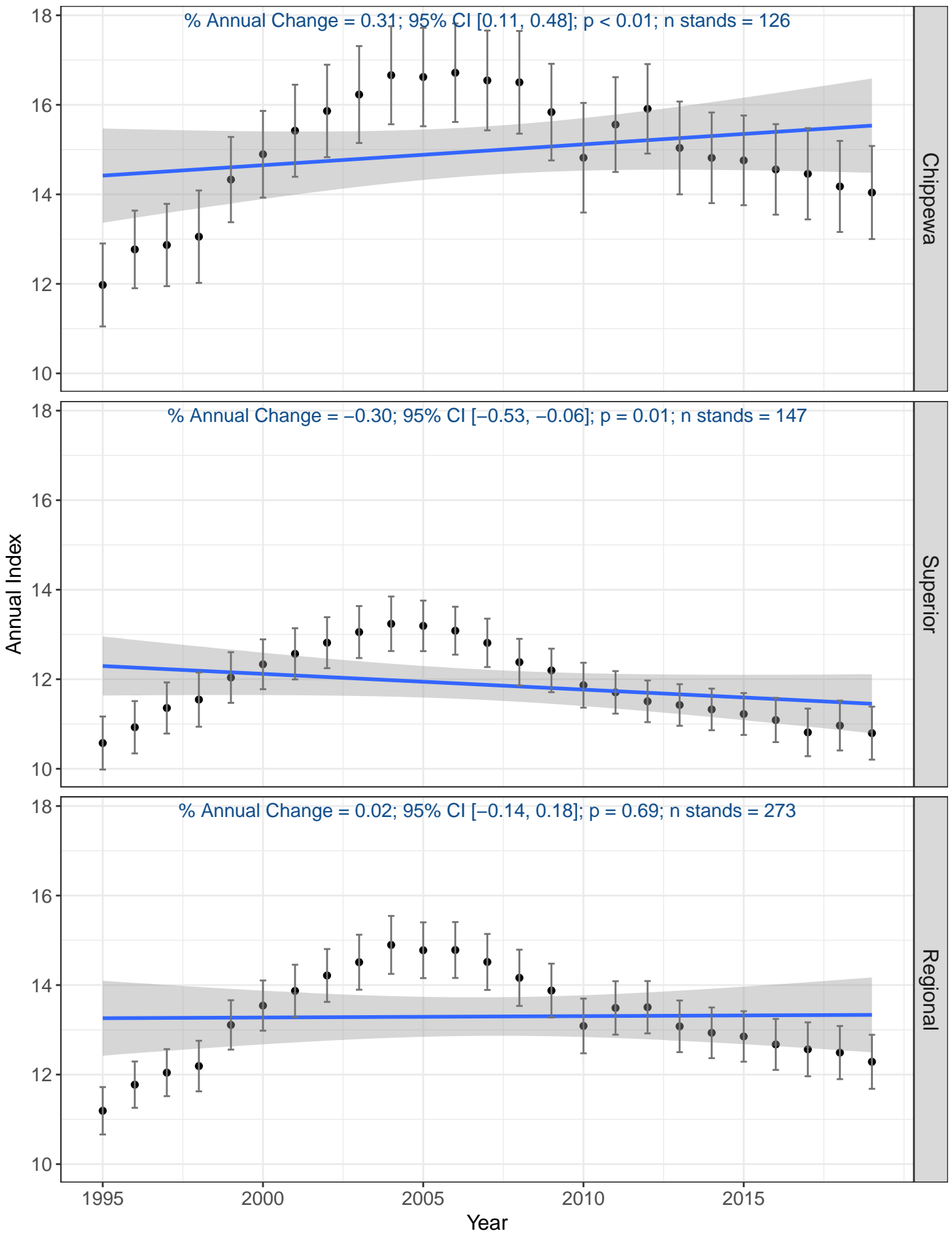
% Annual Change = 0.32; 95% CI [-3.75, 3.79]; p = 0.84; n stands = 18



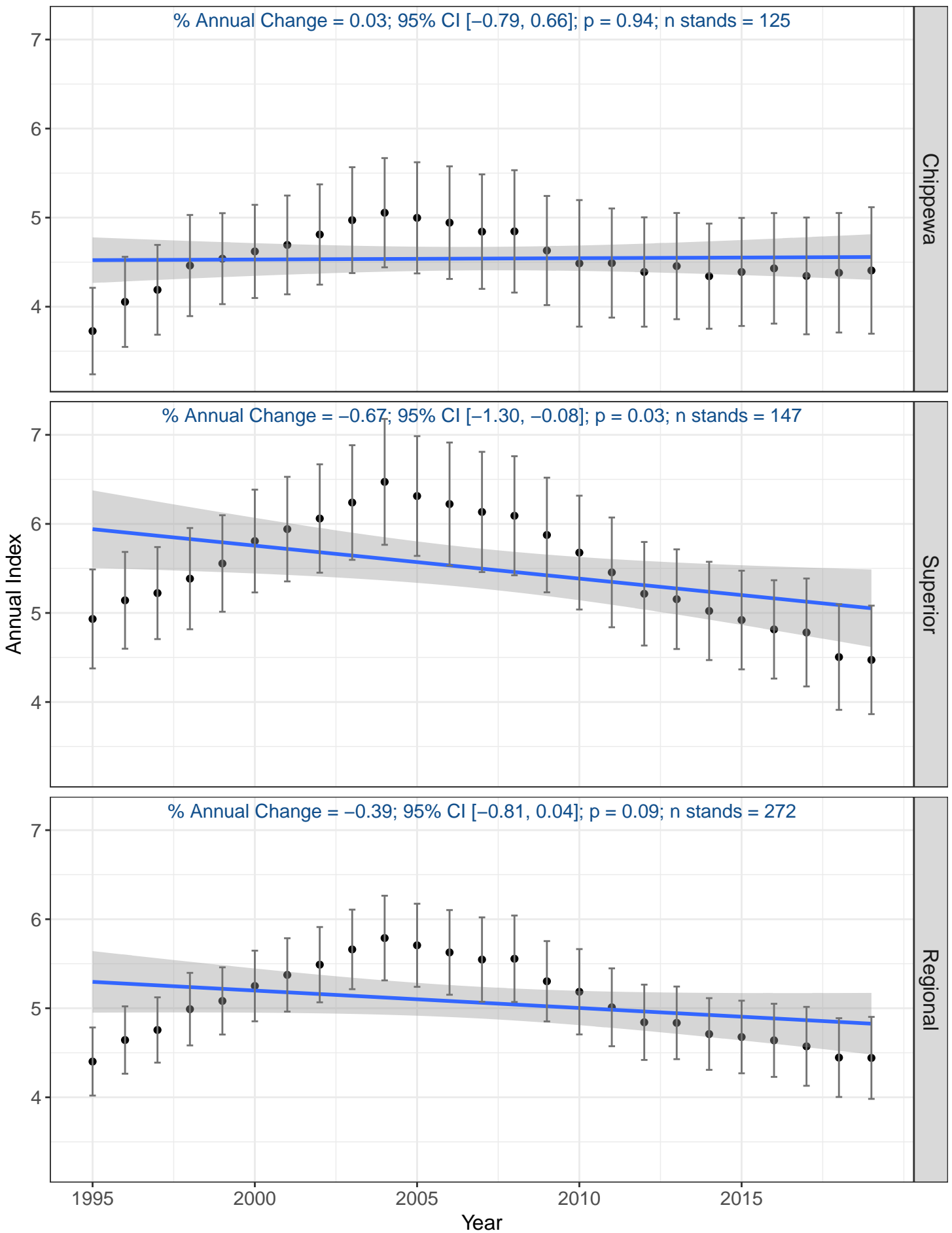
# Coniferous forest species



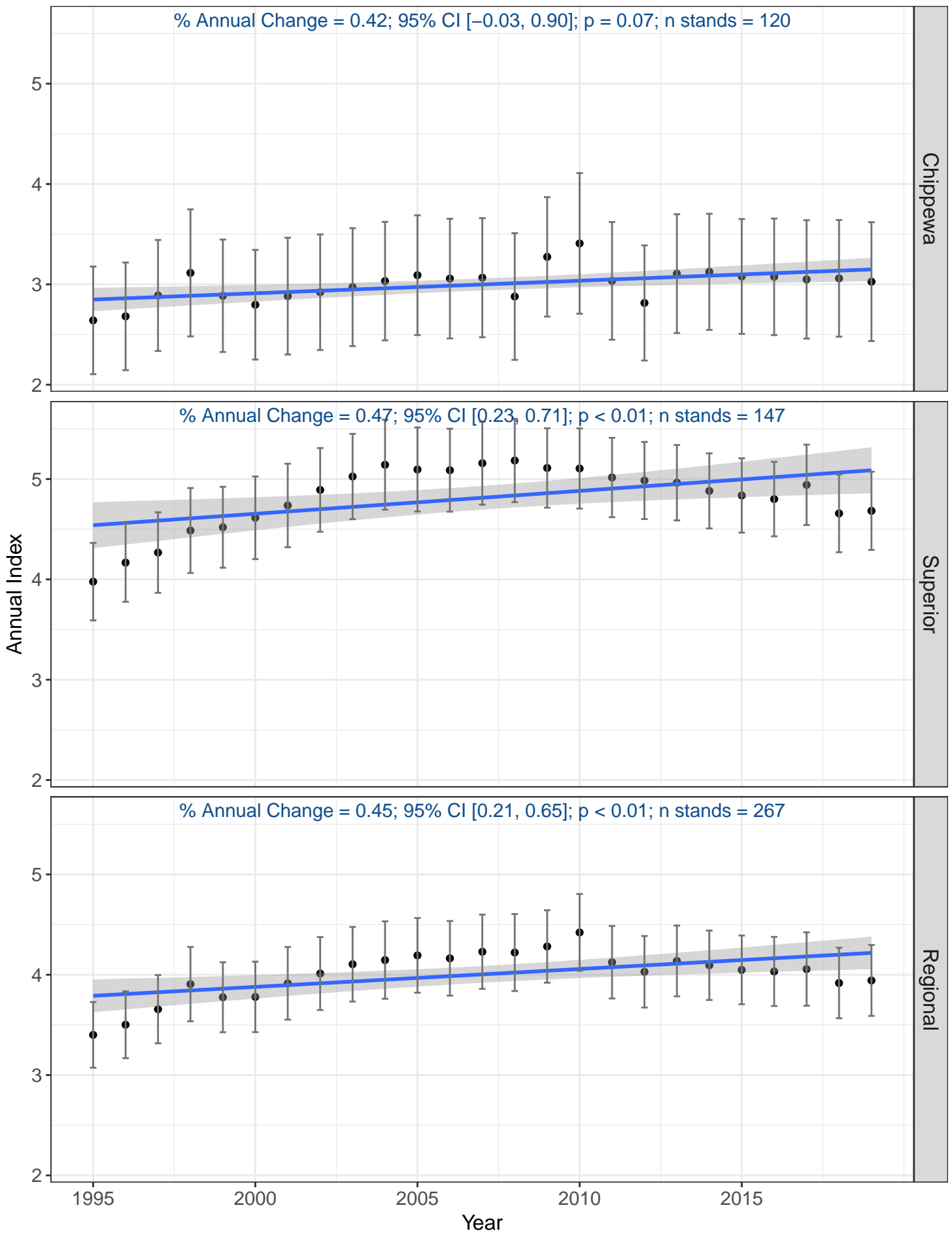
# Deciduous forest species



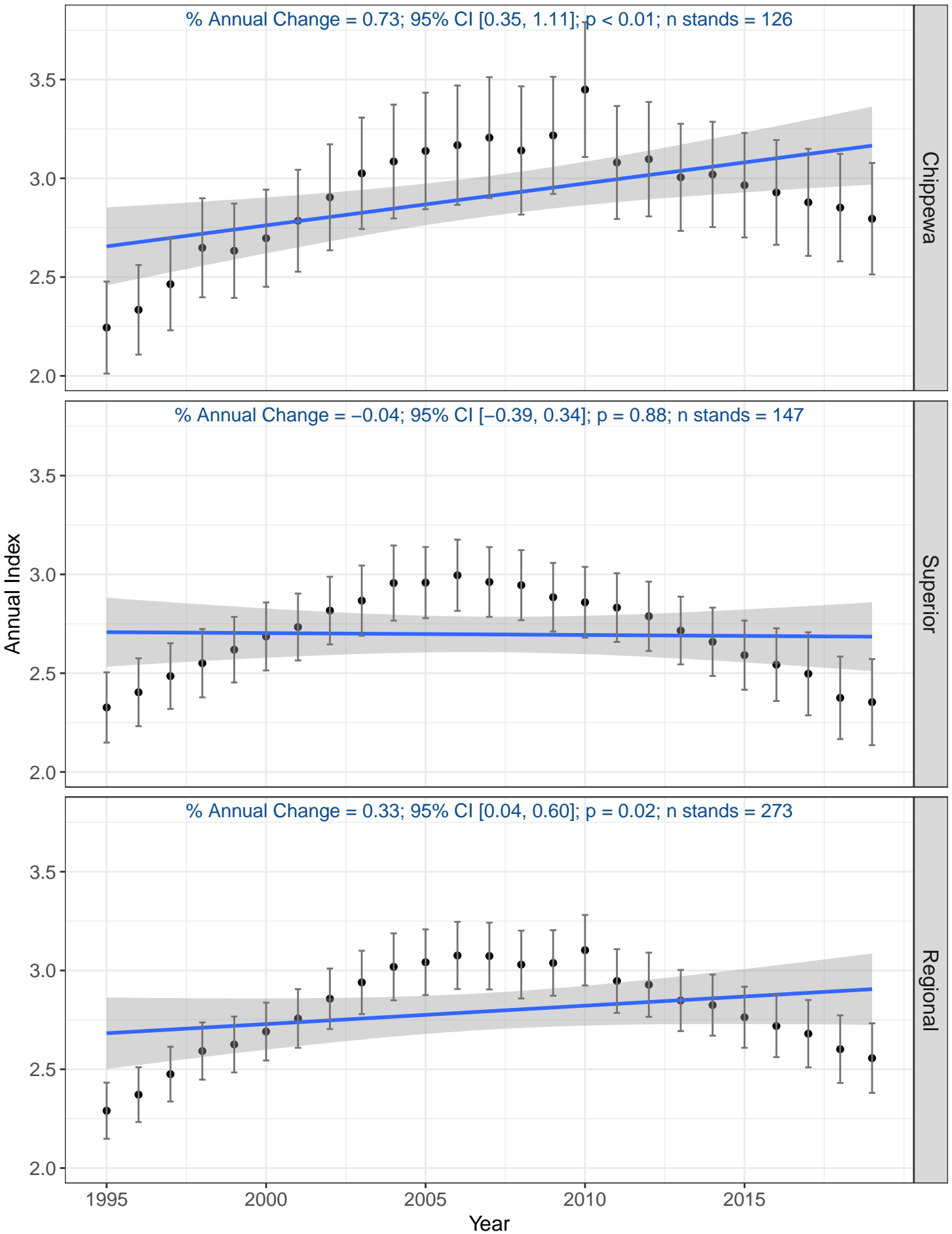
# Early-successional species



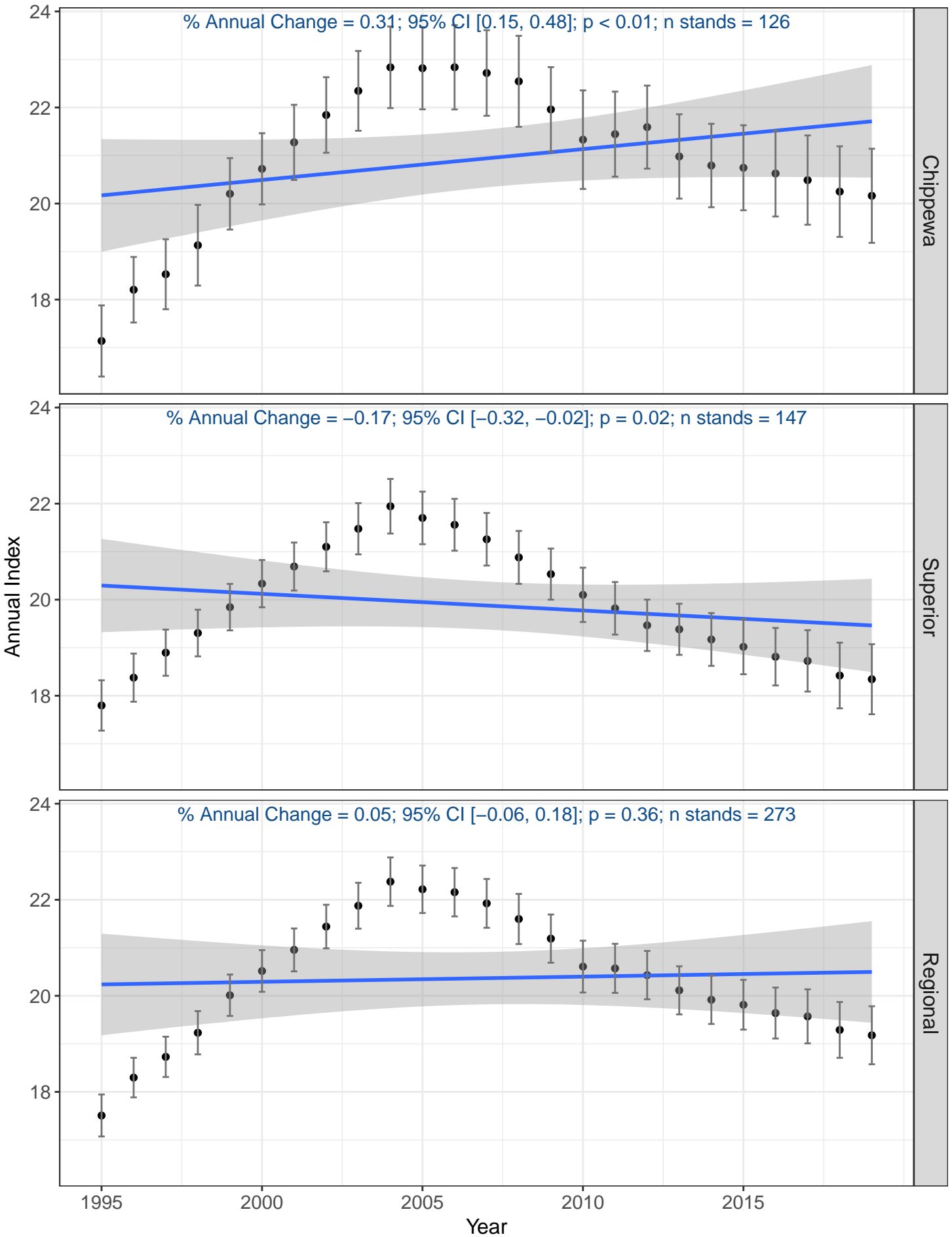
# Lowland-conifer species



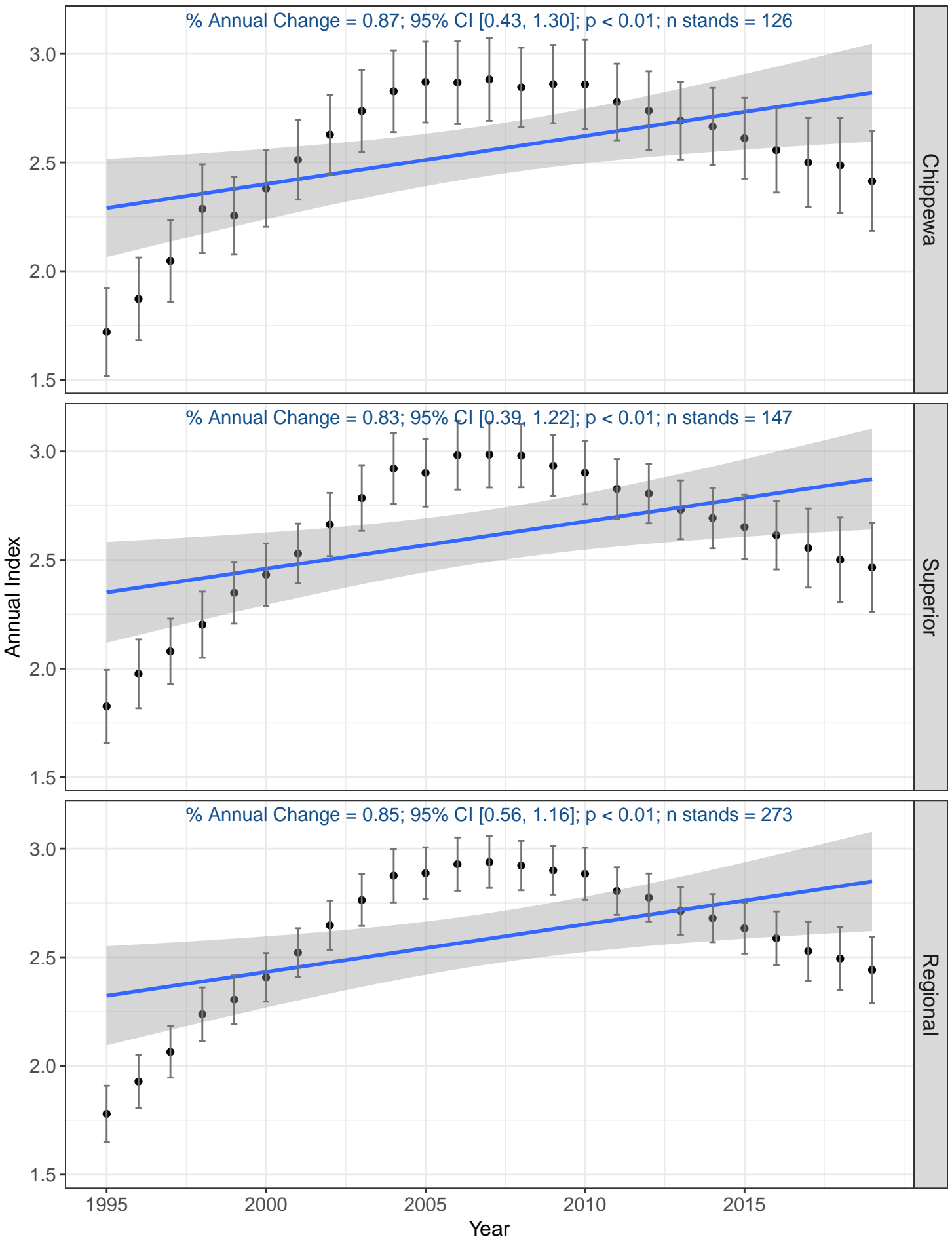
# Mixed forest species



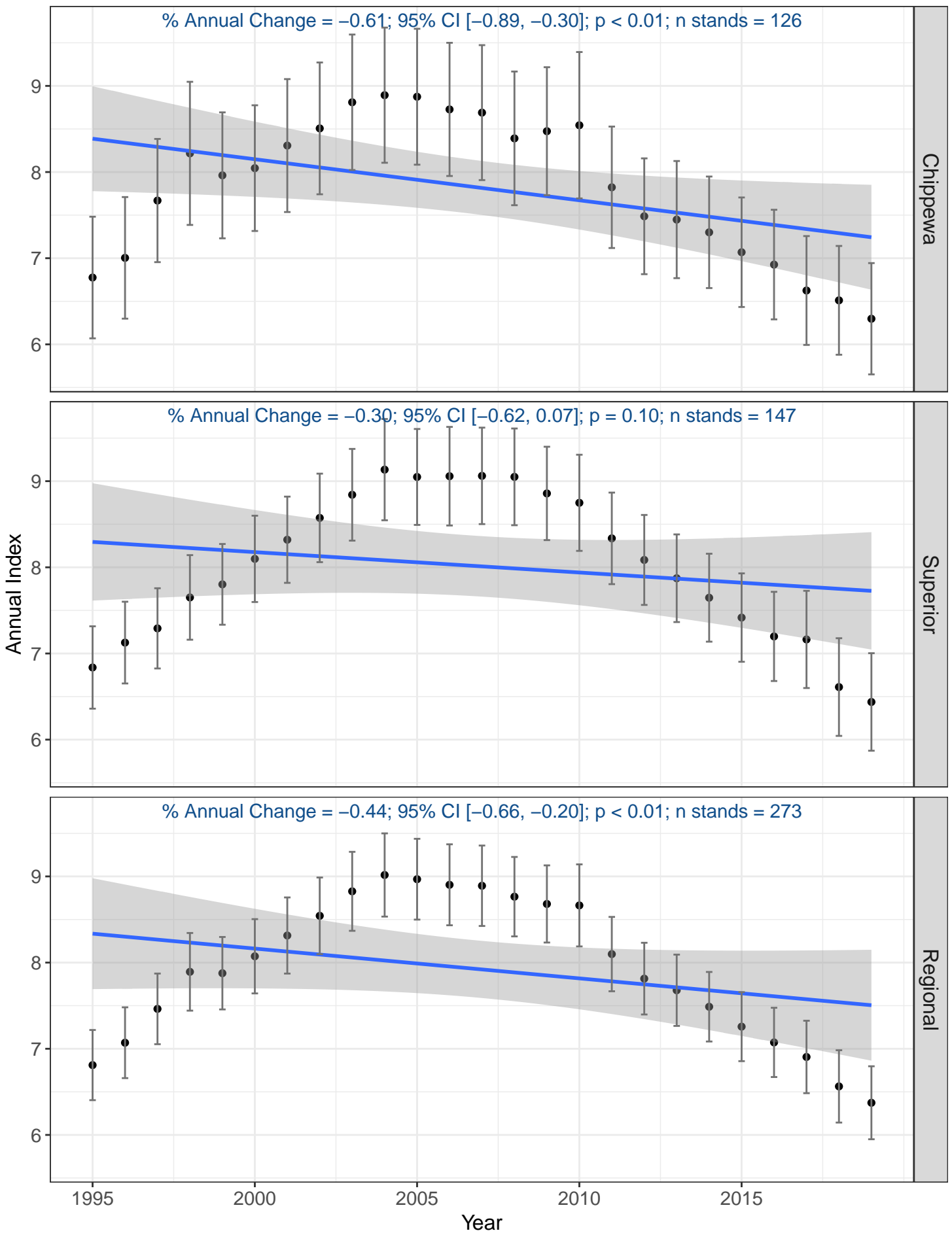
# Long-distance migrants



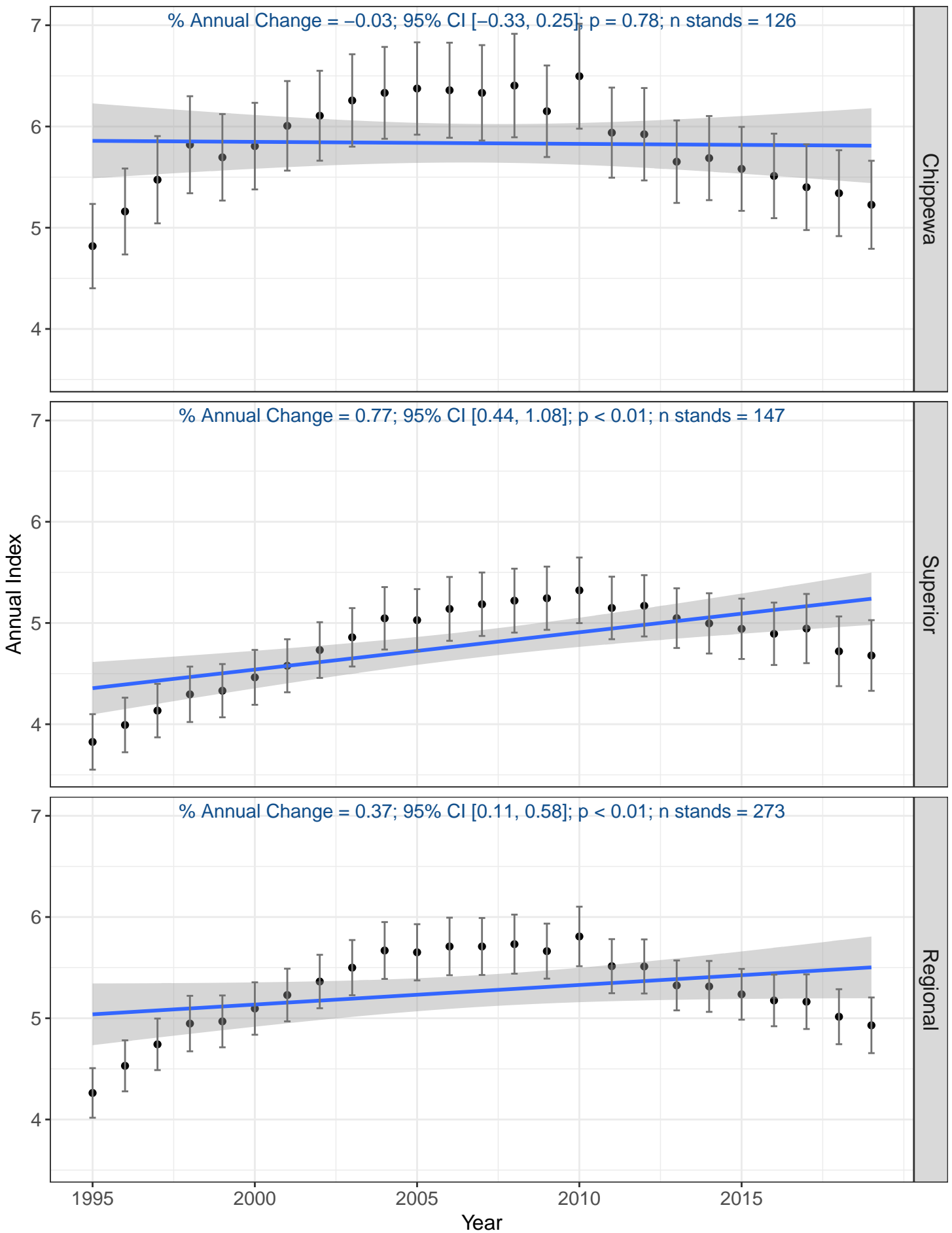
# Permanent residents



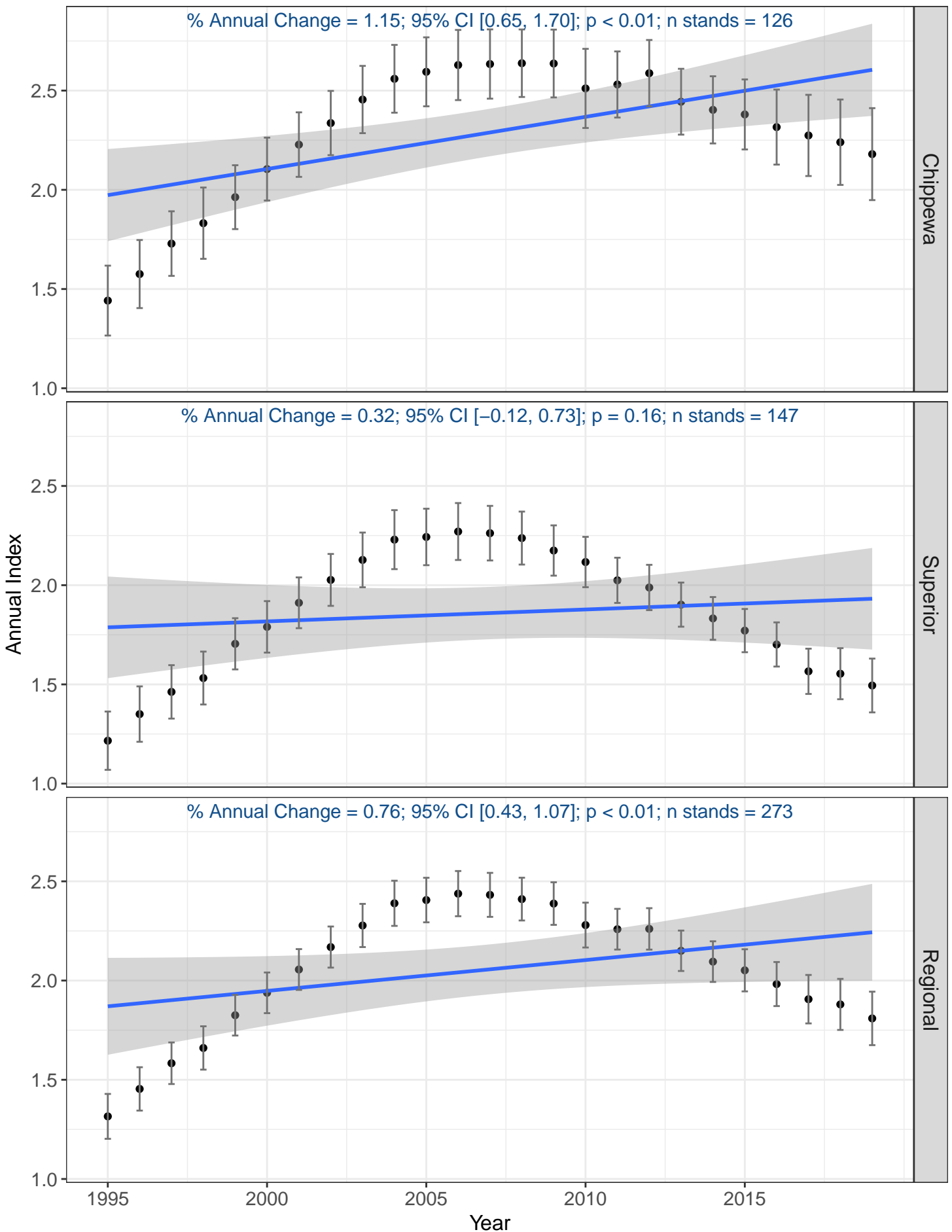
# Short-distance migrants



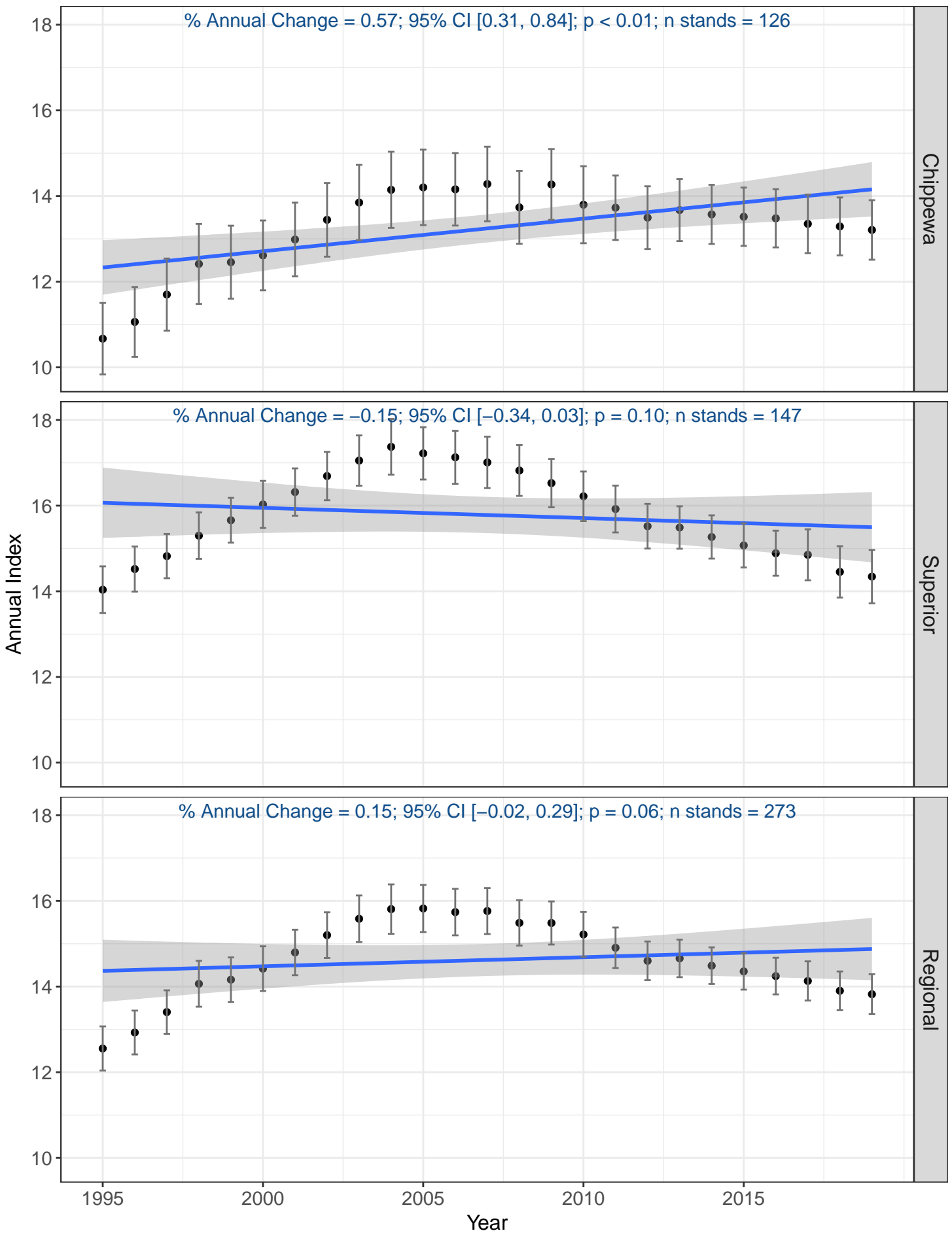
# Canopy nesting species



# Cavity nesting species

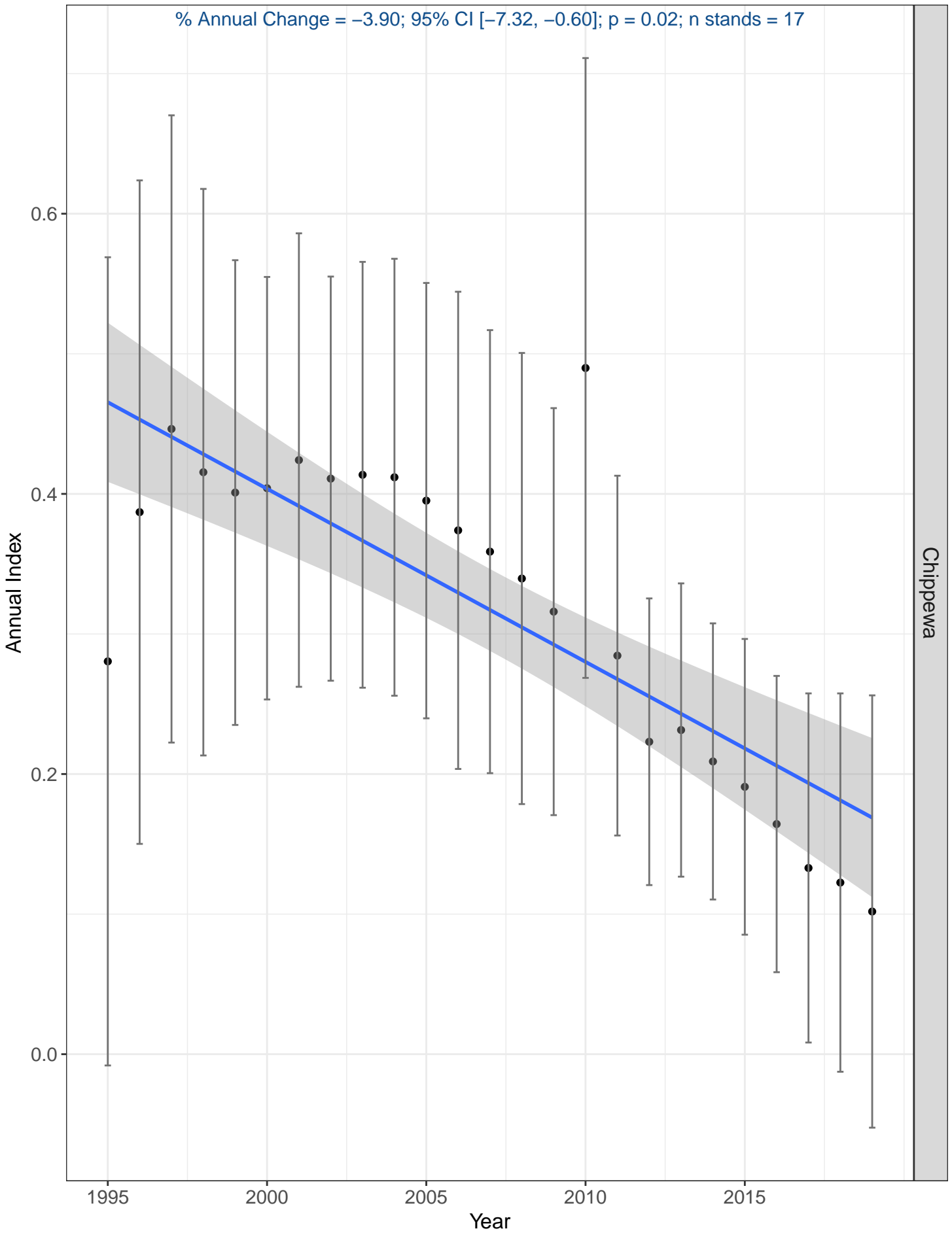


# Ground nesting species



# Nest parasites

% Annual Change =  $-3.90$ ; 95% CI [ $-7.32, -0.60$ ];  $p = 0.02$ ; n stands = 17



# Shrub nesting species

