

STATE OF THE MOUNTAIN BIRDS



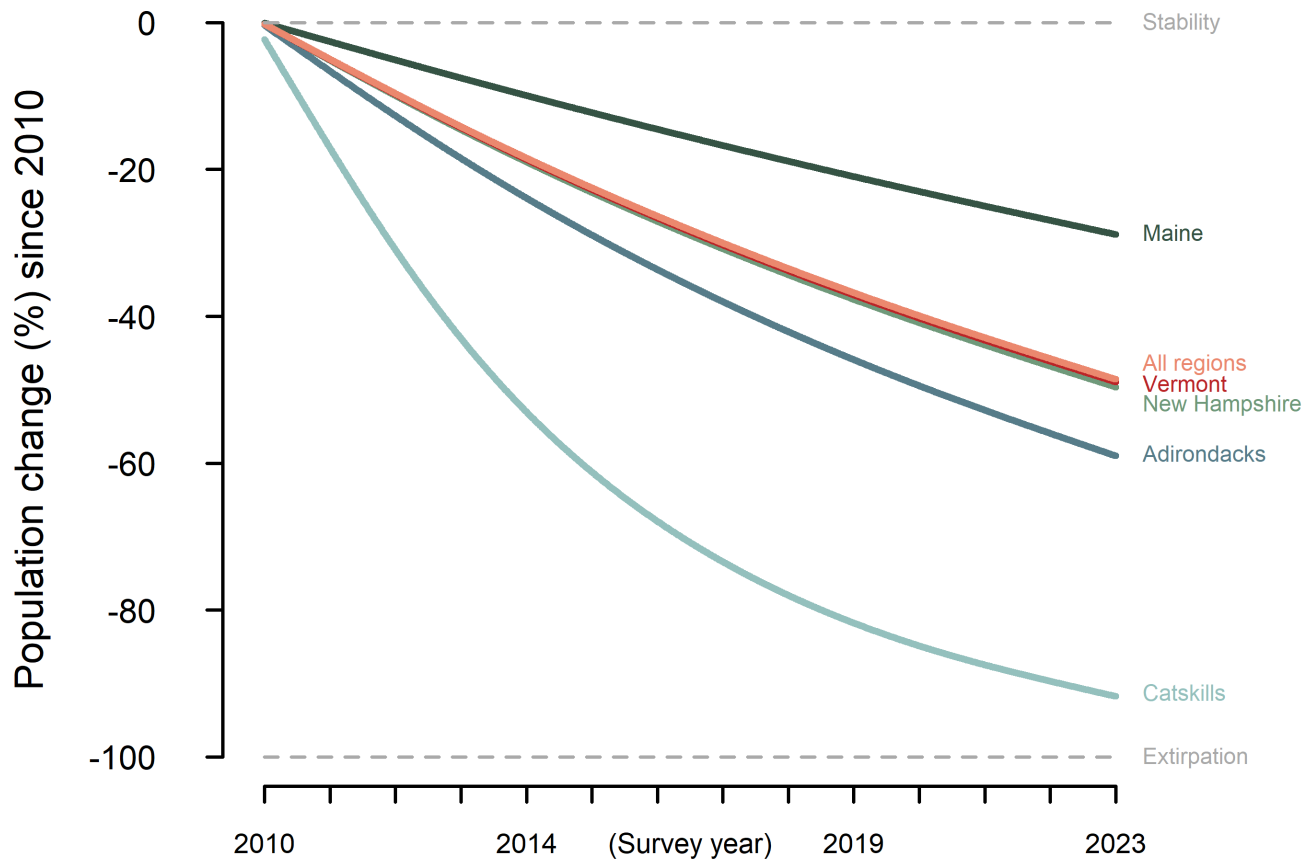
2023 REPORT

Fourteen years of monitoring by many hundreds of community scientists has revealed that our mountain birds are experiencing challenging times in the northeastern United States, but nowhere more so than the **Catskills, where 7 of the 8 monitored bird species that breed there declined by a staggering average of -57% since 2010.** Only Black-capped Chickadee increased in the Catskills during the last 14 years.



Across the entire Mountain Birdwatch region (Catskills to Katahdin) those same seven species (Yellow-bellied Flycatcher, Winter Wren, Bicknell's Thrush, Swainson's Thrush, Hermit Thrush, Blackpoll Warbler, and White-throated Sparrow) have experienced average declines of approximately **-40%** since 2010. To view the trends of each species by region, visit the [State of the Mountain Birds website](#).

Spotlight on White-throated Sparrow: the steepest declining species monitored by Mountain Birdwatch



The estimated overall percent population change since 2010 for White-throated Sparrow as monitored by community scientists via Mountain Birdwatch. The dotted gray line indicates a stable population while negative values indicate a decline since 2010. The dotted purple line represents extirpation: the local extinction of White-throated Sparrows from an area. The Bayesian credible intervals (measures of uncertainty) around each regions' line are omitted for clarity.

The 2023 report is alarming, because it indicates declines of >48% since 2010 for both Hermit Thrush and White-throated Sparrow—two species declining essentially everywhere they breed within the U.S. — and substantial declines for most of the Mountain Birdwatch monitored bird species whose breeding populations predominantly nest in the spruce-fir zone. **All bird species and population segments that nest within the high elevation spruce-fir zone, however, are highly susceptible to the effects of global climate change.** As temperatures continue to rise this century, ecologists predict that dozens of our northeastern montane bird species will shift their breeding ranges upslope and poleward, beyond the northern boundary of the contiguous United States.

Given these forecasted changes, it is imperative that we continue to monitor these species through Mountain Birdwatch and document their responses to climate change, and other human-induced planetary changes like habitat loss and degradation. Without the baseline data of Mountain Birdwatch, we will not be in a strong position to fully understand how (or if) our mitigation and conservation actions positively benefit these avian populations.

White-throated Sparrow is the fastest declining montane species monitored by Mountain Birdwatch in our region, having declined by 61% over the last 14 years in the northeastern U.S.

Mean annual trends and population change (with 80% Bayesian credible intervals [CRI]) for the 10 avian species and Red Squirrel (an important nest predator of montane bird species) monitored through Mountain Birdwatch from 2010 through 2023. Dot color indicates the direction and strength of evidence of the mean annual trend: ● (strong evidence for a negative trend), ● (weak evidence for a negative trend), ● (weak evidence for a positive trend), or ● (strong evidence for a positive trend). Strong evidence is suggested for a trend when the 80% CRI does not contain zero.

Species	Mean annual trend (%)	Trend (80% CRI)	Probability of decrease	Probability of increase	Population change (%) 2010-2023	Population change (80% CRI)
Yellow-bellied Flycatcher	● -2.22	(-3.26, -1.17)	0.99	0.01	-25.27	(-35.01, -14.23)
Black-capped Chickadee	● 2.22	(-1.17, 5.60)	0.20	0.80	33.07	(-14.16, 102.96)
Boreal Chickadee	● 3.29	(0.66, 6.05)	0.05	0.95	52.27	(8.91, 114.49)
Winter Wren	● -2.70	(-4.50, -0.85)	0.96	0.04	-29.90	(-45.05, -10.45)
Bicknell's Thrush	● -4.35	(-5.20, -3.49)	>0.99	<0.01	-43.91	(-50.06, -37.00)
Swainson's Thrush	● -2.04	(-2.91, -1.17)	0.99	0.01	-23.48	(-31.86, -14.17)
Hermit Thrush	● -6.96	(-9.36, -4.54)	>0.99	<0.01	-60.83	(-72.12, -45.35)
Blackpoll Warbler	● -4.49	(-5.18, -3.80)	>0.99	<0.01	-44.95	(-49.89, -39.58)
White-throated Sparrow	● -4.97	(-6.09, -3.84)	>0.99	<0.01	-48.44	(-55.84, -39.89)
Fox Sparrow	● 6.40	(2.97, 9.81)	0.05	0.95	124.08	(46.21, 237.40)
Red Squirrel	● 8.70	(2.33, 15.50)	0.04	0.96	195.82	(34.83, 550.65)

Please cite this report and drop Jason Hill an email at jhill@vtecostudies.org to let us know how you used these data. Thank you.

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