



NHA field biologist searching for American Pipits near the Great Gulf on Mt. Washington. Photo by SheridanBrown.

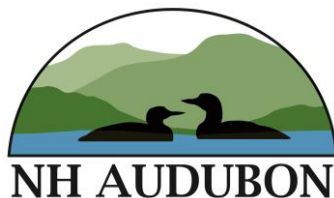
2018 Survey of American Pipits (*Anthus rubescens*) breeding on Mount Washington.

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Background and prior studies: The American Pipit (*Anthus rubescens*) adds sparkle to a visit to New England’s highest alpine summit with its captivating flight displays, delicate “pip-pip” calls, and a penchant for tail-bobbing while perched on boulders and trail signs. It is a slender sparrow-sized migratory bird that nests on the ground, but only in arctic and alpine environments. East of the Rocky Mountains, pipits are documented to breed in only three isolated mountaintop areas – Quebec’s Chic-Chocs, Maine’s Mount Katahdin, and New Hampshire’s Mount Washington. Because of their extremely limited breeding distribution in New Hampshire, American Pipits are state-listed as “Special Concern” species, a classification that indicates that the species could decline to state-threatened status if conservation actions are not taken. Additionally, the updated *New Hampshire Wildlife Action Plan* (NH Fish and Game 2015) includes pipits as a “Species of Greatest Conservation Need (SGCN).” SGCN species are those in serious trouble – declining numbers, with smaller patches of habitat, and/or threatened by a host of management issues.

In June-July 1997, two NHA field technicians surveyed for pipit presence on transects laid out over 20 miles of alpine hiking trails situated along the crest of the Presidential Range. Our field team detected no pipit breeding activity anywhere in the alpine zone except on Mount Washington. In June-August 1998, another NHA field crew built upon 1997’s broad-scale surveys by conducting a more intensive study of pipit breeding ecology in areas where we had previously detected them on Mount Washington (*Stalking the Wild American Pipit, NH Audubon, Nov-Dec 1998*). That fieldwork identified 11 breeding territories, accounted for at least 21 adult pipits, found eight active pipit nests with a minimum of 43 eggs, and tallied at least 27 fledged young. We noticed that pipit nest sites were limited to a relatively narrow band of alpine habitat located on Mount Washington from 5,200 to 5,800 ft.

In 2016, New Hampshire Audubon (NHA) identified the need for more current data on the size and breeding season distribution of the American Pipit breeding population found in alpine habitat in New Hampshire’s White Mountains. In 2017 – 20 years after those earlier surveys – we re-surveyed alpine habitat in the Presidentials and on Franconia Ridge to see whether the pipit population had expanded, contracted, or remained stable since the late 1990s.

Our 2017 survey methods were similar to our 1997 survey. We identified all alpine areas at elevations above 5,000 ft, highlighting hiking trails/roads through pipit habitat and developed routes to cover these areas most efficiently. We searched for pipit presence by sight and sound in alpine zone breeding habitat in the Presidential Range and on nearby Franconia Ridge between 17 June and 1 August 2017. Collectively, our survey teams covered a total of 13.8 out of 20 miles (69%) of the alpine zone transects in eight routes across the following six peaks and ridges: Franconia Ridge (from Little Haystack to just north of Lafayette), Madison, Adams, Jefferson, Clay, and Washington. Pipit flight displays and fledglings were documented on Mount Washington only despite the fact that 2/3 of our transect miles (9.3 out of 13.8 miles) were located in alpine zone habitat not on Mount Washington. Adult pipits were found at the Cow Pasture (3), between Ball Crag and fuel tanks (4), near the Westside/Gulfside trails junction (1), and along Auto Road near the summit (3). Juvenile pipits fledged from nests were all located along the Auto Road near the summit (3).



2018 Results: Weather on the summit of Mount Washington always presents major challenges for those attempting to conduct avian fieldwork in this environment. In June and July 2018, we managed to get pipit survey field crews out on five days (June 3, 20, and 22, July 11 and 20). Hours spent conducting pipit field surveys totaled 25.5 hrs. We walked a total linear distance of 11.75 mi of trail transects above 5,000 ft.

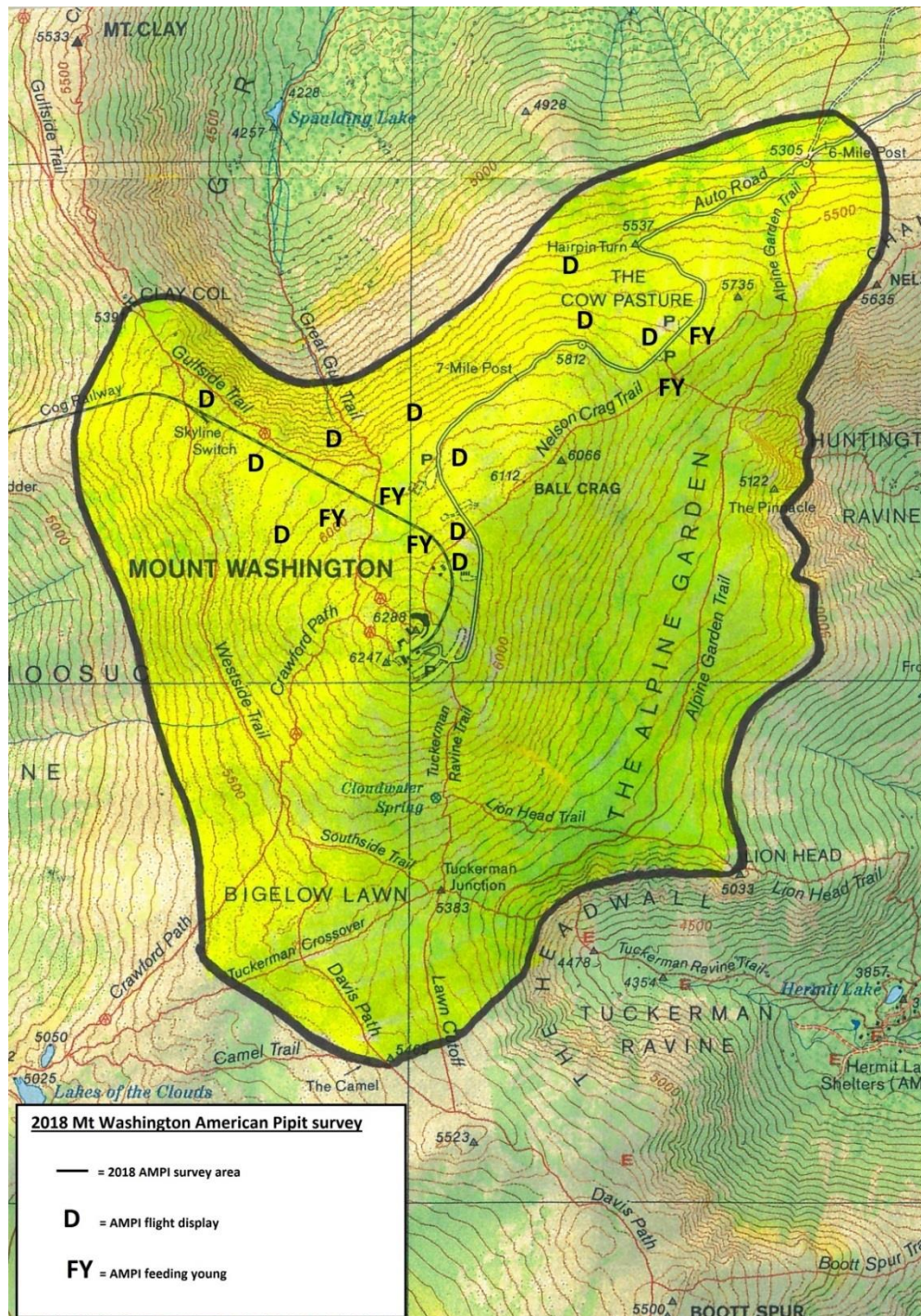


Figure 2. Locations on Mt. Washington where adult male flight displays (D) and adults feeding young (FY) were detected in 2018 surveys.



Figure 3. Great Gulf Headwall (left) and Cow Pasture (right) were areas with much pipit activity on Mt. Washington during 2018 surveys. Photos by Chris Martin.

We observed 11 flight display areas and saw many pipits foraging, but to our disappointment, we did not locate even one nest during our five field days. We had sightings of a total of 26 adults and five young-of-the-year pipits during our surveys; 16 adult pipits only prior to July 11, and a total of 10 adults and 5 fledged juveniles on July 11 and 20. Flight displays originated in areas from 5,525-6,150 ft elevation (mean = 5,820 ft, median = 5,775 ft, N = 11). Aspect of terrain where flight displays originated was not random, in fact all locations faced from west-northwest to northeast (mean = 310 degrees, median = 30 degrees, N = 11).

All pipit activity detected during our field surveys was noted in areas north of the summit and northwest of the Nelson Crag Trail from Nelson Crag to the summit cone (Figure 3). In particular, pipits were very active in the Cow Pasture (Auto Road Mile 6.5), at the 6,000 ft parking area (Auto Road Mile 7.3), near the fuel tanks and Nelson Crag Trail crossing (Auto Road Mile 7.5), and along the Cog Railway and edge of the Great Gulf as far as the saddle to Mount Clay. Despite covering 2.5 miles of trails on the eastern, southern, and western sides of the summit cone, from Alpine Garden to Bigelow Lawn to Westside Trail, there were no pipits seen or heard in those areas (Figure 4).

Conclusions: Despite weather and other logistical challenges that limited the scope of our fieldwork in 2018, NHA's survey of American Pipit breeding activity on Mount Washington provides some helpful information on the status of the southernmost breeding population of this alpine-nesting species in eastern North America. Pipits are ground-nesting at a higher



Figure 4. Areas where no pipits were detected during 2018 surveys included Crawford Path and Bigelow Lawn. Photos by Chris Martin.

elevation than any other bird species in New England and their population on Mount Washington appears to have remained fairly stable over the past 20 years. They seem to be able to cope with harsh weather, predation risks (including Common Ravens patrolling the area, and carnivorous mammals like weasels and shrews, and even Red Squirrels, which we observed crossing the treeless Cow Pasture during our fieldwork), and potential for collisions with vehicles on the Auto Road and encounters with Cog Railway trains (Figure 5).

Combined with the surveys conducted in 2017 (Martin and Galbraith 2018), which failed to detect presence of pipits during the breeding season on other Presidential peaks and on Franconia Ridge, we conclude that in the White Mountains American Pipit breeding continues to be restricted to the highest areas of alpine habitat near the summit of Mount Washington. At this time, it appears that the nearby peaks of the Presidential Range and Franconia Ridge are harboring few, if any, additional pipit breeding pairs.

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The Audubon Society of New Hampshire (NHA) is a statewide nonprofit membership organization dedicated to the conservation of wildlife and habitat throughout the state. Founded in 1914 and independent of the National Audubon Society, NHA programs focus on

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Figure 5. Cog Railway train crossing active American Pipit breeding habitat at 5,600 ft near the Skyline Switch.

References cited:

Martin, C.J. and H. Galbraith. 2018. 2017 survey of the American Pipit (*Anthus rubescens*) breeding population in alpine habitat in New Hampshire's Presidential Range and Franconia Ridge. Final report to Waterman Fund. 6 pp.

NH Audubon, Nov-Dec 1998. Stalking the Wild American Pipit by Chris Martin. NHA newsletter 34(6): 5-6, 14.

New Hampshire Wildlife Action Plan: 2015 Revised Edition. 2015. NH Fish and Game Department.