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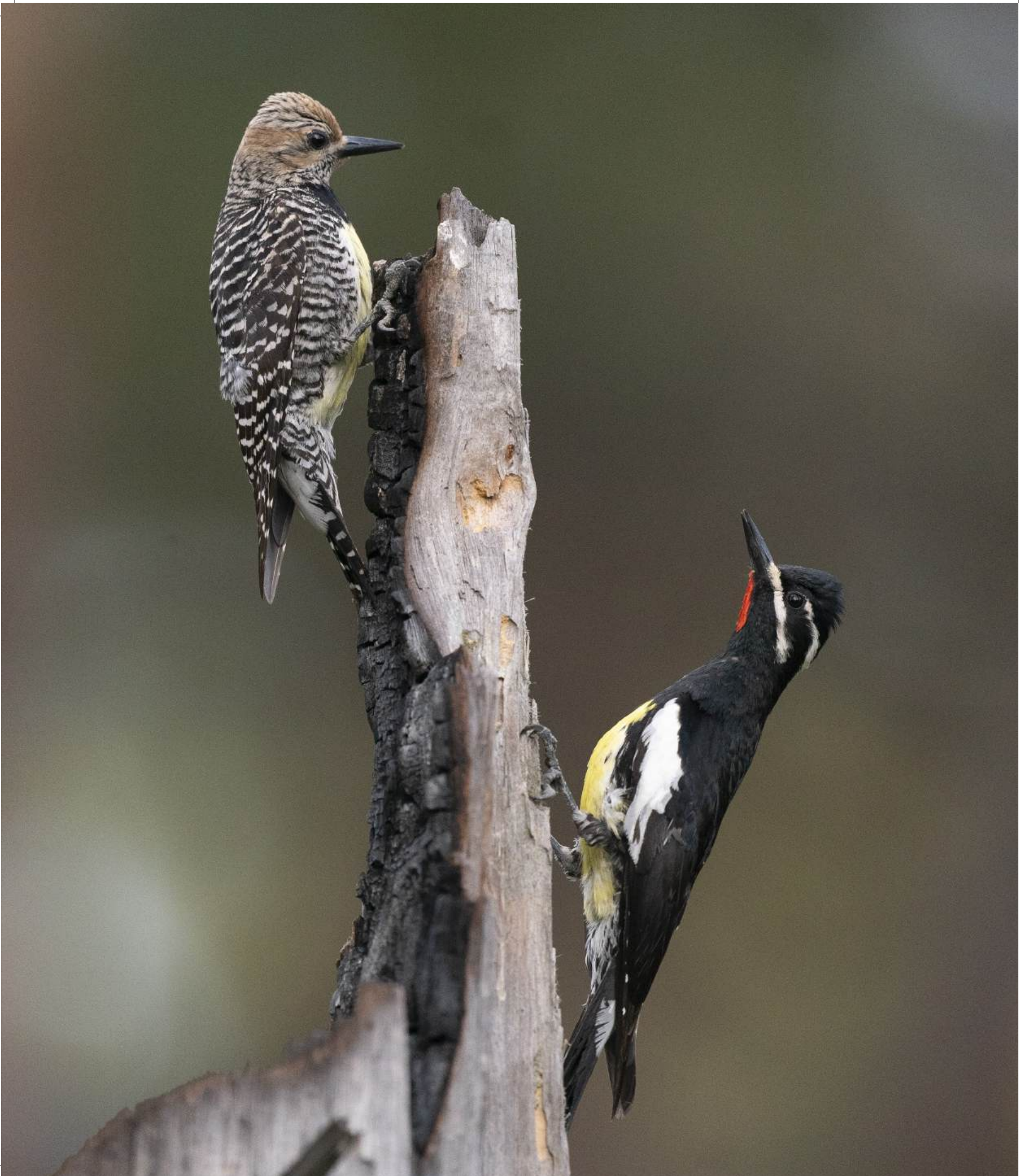
**Page 1:** Pileated Woodpeckers, like this male, have a broad range but are found in greater abundance in mature forests with plenty of moist, decaying wood—the ideal location for carpenter ants, their favored food.

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**Opposite:** The Rocky Mountains separate breeding populations of Northern Flickers into two distinctive subspecies, with Yellow-shafted birds occurring east and north of this range and Red-shafted to the west. “Intergrade” flickers show a mix of traits of these two subspecies where ranges overlap. This Seattle visitor displays the red malar of the Red-shafted species and the yellow wing and tail feathers of the Yellow-shafted.

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During the last week of attending to the nest, adults are more likely to land on the nest tree and maneuver toward the opening in view of the begging young, as this White-headed Woodpecker is doing, rather than flying directly to the entrance.



# 2

## Territory, Courtship, and Nest Creation

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*As the first golden rays of light splintered through bundles of needles on giant red-armored ponderosa pines in Washington's Cascade Range, I began to hear a cacophonous mixture of shrieks, mewing, churrs, rattles, warbles, cackles, and chipping blended with loud, rhythmic drumming of various cadences and amplitudes, creating a tremendous sense of urgent vitality.*

White-headed, Hairy, Black-backed, and Pileated Woodpeckers, along with Williamson's, Red-breasted, and Red-naped Sapsuckers, as well as Northern Flickers at times, competed with others of their own species and, in some cases, other species to stand out from the din, each at a subtly different stage in their efforts to breed. All amplified their testimony for potential mates or warnings to rivals by pounding their bills on the most resonant surfaces, from the face of a giant hollow aspen to the dead limb of a live fir to the metal roof of an outhouse.

Spring is analogous to dawn for woodpeckers, the revelatory instant when percussion and color erupt in response to the moment when weather and light tip beyond the threshold needed to lay winter to rest. Longer days trigger hormones that stimulate woodpeckers to move to breeding areas, establish or reestablish territories, secure mates, create or find nest sites, and prepare to breed. These behaviors vary by species, geography, ever-changing habitat, and the resulting availability of nest sites and prey, but are always aimed at contributing young to the next generation.

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A male Williamson's Sapsucker raises his crest and stretches his body to reveal his colorful red chin and yellow belly in response to a female who answered his drumming and calling.





## INTRODUCTION

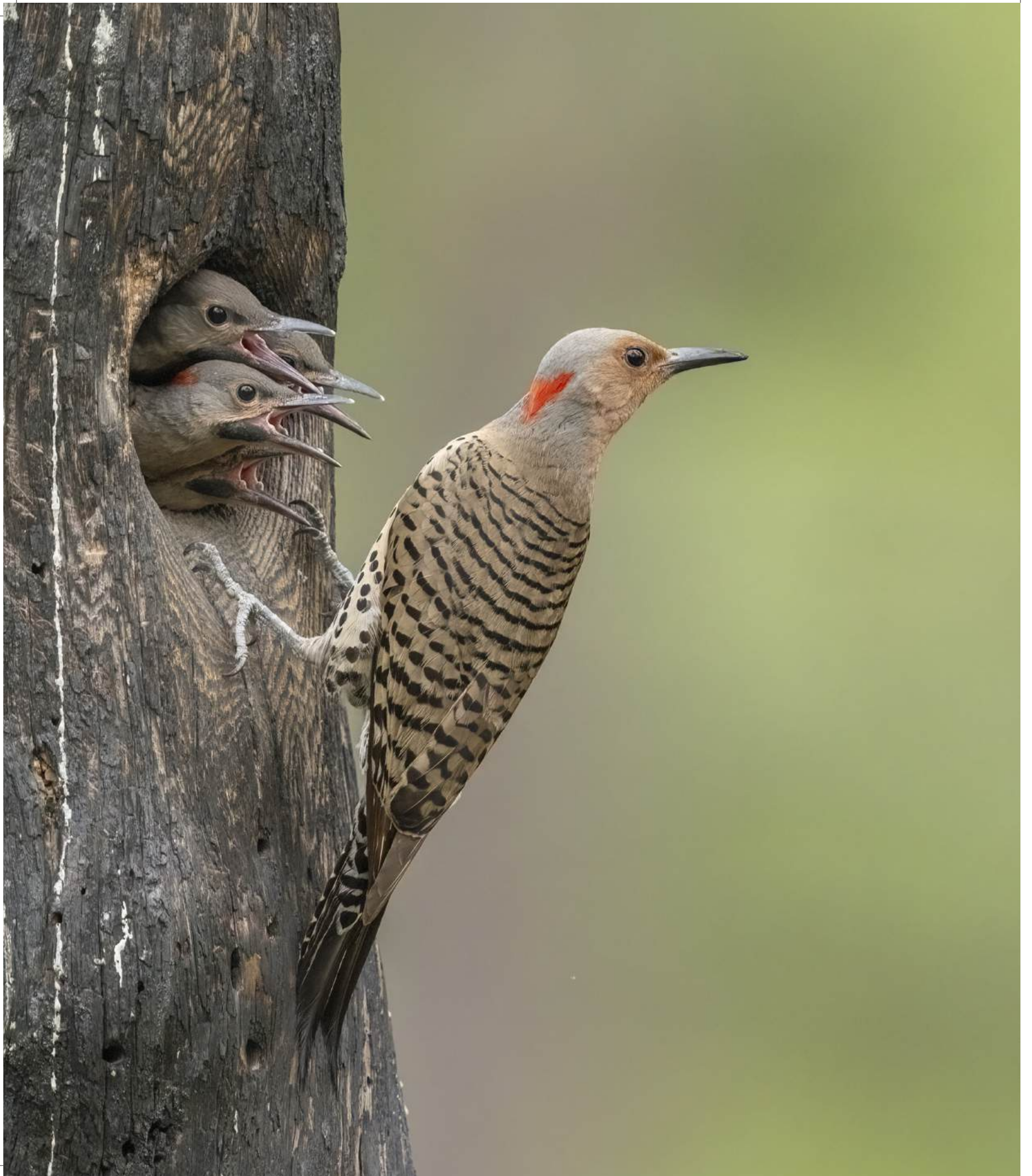
# The Heart of the Forest



*In the early spring as night's darkest hour melts to dawn, you can hear the haunting calls of owls, soon followed by the coos of doves, and gradually joined and replaced by harmonious singing from secreted performers in every direction. The high-pitched melodic trills of robins below, the ascending flutelike calls of thrushes above, the accelerating whistling of warblers, and the cheerful song of wrens surround you. Each adds to a sense of peace as their exquisite songs blend as one choir, making it difficult to separate one singer from another until a primal beat from the heart of the forest adds rhythm to the mix.*

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Wood chips fly in response to blows from the dagger-shaped bill of a male Pileated Woodpecker. This species pursues ants by opening tree bark to expose carpenter ants, termites, and beetle larvae before lapping them up with its sticky tongue.



# 3

## Life in the Nest

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*The silvery frost of a May morning dissolved as the sun rose over the central Oregon Cascades. Years earlier, fire had consumed shrubs and small trees, leaving behind an open woodland of red ponderosa pine trunks accented by the occasional blackened snag. With the extravagance of courtship concluded, all was hushed, save the churring of late-courting Lewis's Woodpeckers and the soft taps of a White-headed Woodpecker chipping the final slivers from its nest wall inside a barkless pine snag.*

I shivered as I stepped out of the hot rays and brittle soil of the burn and headed downslope, across a stream, and under the voluminous canopy of the giant quaking aspen, Douglas-fir, and ponderosa pine that still held the morning's chill against the icy ground. These mere steps seemed to move me miles into a distinct habitat where the rooflike mesh of upper branches had trapped cool air and protected the last of the winter snow.

Rays of sun through openings in the canopy crossed one another, dropping narrow shafts of light to create changing patterns on leaves, branches, and downed logs. Within the shift-

ing shadows and light, several species of well-camouflaged black-and-white woodpeckers were moving into another stage of their lives.

Breaking twigs and crackling needles under my feet masked all faint sounds until I stopped and stood still. Only then could I make out various taps and scrapes, soft pecking, and the occasional sound of wings or squeaky calls of the new life stage underway. Now that the fittest birds had secured mates and nest sites, the priority shifted from performance at drumming sites to secrecy at nest cavities, where each pair would lay their eggs and raise their young. Hairy Woodpeckers

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As fledging nears, nestlings look very much like adults and are constantly hungry. This female Northern Yellow-shafted Flicker prepares to take flight after feeding her four young.



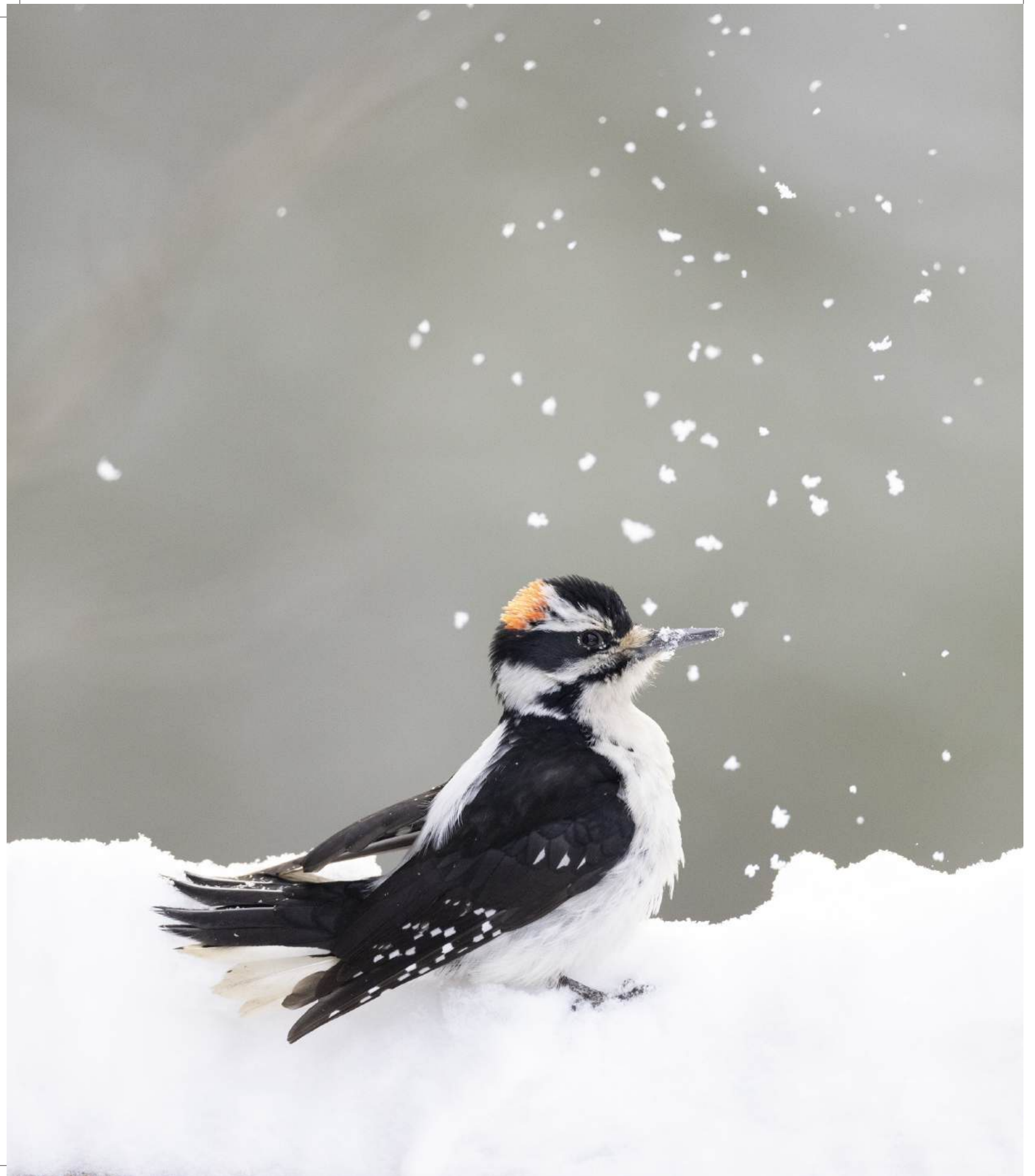
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Five minutes after its sibling was fed, a Black-backed Woodpecker unexpectedly pushes its body beyond the lip of the cavity and immediately begins a downward stroke to break its fall before gaining control and turning toward the trees into which it would disappear.

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**Opposite:** Gray-breasted Woodpeckers are communal breeders, often making it difficult to discern familial relations, especially when they are feeding together upon cactus fruit. The adult male woodpecker on the right is feeding alongside what appears to be a young male, which may be his offspring.





# 5

## Surviving Winter

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*On a trip across the sagelands of eastern Washington, I was surprised to see twelve mustachioed Northern Flickers in silky plumage perched together on the blue-green sage, an unusual host. They reminded me of the Christmas decorations of my youth, with their seemingly unrealistic and fanciful colors. One had the red mustache behind the bill expected of the Red-shafted race but sported the red crescent of the Yellow-shafted on its nape. Another featured the black malar of the Yellow-shafted mismatched with the red underwings of the Red-shafted. Still another had a mustache that was a slurry of black and red with orange underwings.*

It was the holidays, so I should not have been surprised. This tableau was not the result of artistic license taken by a designer, nor the mistake of artificial intelligence; these were simply flickers sporting variations of the colors found in the western and eastern races, a relatively common winter sight in the Northwest when migrants from the intergrade zone in the colder and snowier north, where the two races mix, flood south to find more accessible food.

The dozen wandering woodpeckers balanced on the sagebrush as I watched them, and their snow-dotted malars, underwings, and undertail

feathers flashed as they raised and lowered wings, tails, necks, and breasts to maintain their tenuous perch in the snowy wind.

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Finding sustenance and shelter in winter is the final and most difficult test for woodpeckers in their annual struggle to survive. Shorter periods of daylight and longer stretches of cold leave less time to safely accomplish all that keeps them alive. For many species, favored foods are dormant or inaccessible, forcing them to adapt, move, or perish. Woodpeckers must find or create

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Snow flies as a male Hairy Woodpecker forages. One of the hardiest species, the Hairy lives year-round in some of the coldest places in North America.



## EPILOGUE

# The Future of the Woodpecker



*Woodpeckers must be ubiquitous for North American forest ecosystems to thrive. Fortunately, forty-one of the forty-three species that lived in North America when Europeans first arrived survive today.*

Although a few, such as the Red-bellied and Golden-fronted Woodpecker, are doing relatively well compared to other wildlife, most species, especially American Three-toed, Arizona, Black-backed, Gila, Guadeloupe, Gray-crowned, Lewis's, Red-cockaded, Red-headed, and White-headed Woodpeckers, as well as Fernandina's and Gilded Flickers, Yellow-bellied and Williamson's Sapsuckers, and Antillean Piculet, are considered sensitive, vulnerable, or near threatened in parts or all of their range. Since woodpeckers can be found in every habitat with large trees or cacti, their numbers provide a tool for taking the pulse of those habitats that blanket most of our continent.

The most threatened woodpeckers are challenged by timber harvest, snag removal, fire suppression, salvage logging, alteration of riparian areas, and grazing. The impacts of climate change, including more frequent and extreme fires and storms, warming temperatures, and changes in precipitation regimes, are challenging native plants and beneficial insects, impacting both habitat and woodpecker food supply. Conversion of habitat to housing, commercial development, agriculture, and nonnative plantings, as well as use of herbicides and pesticides, fragments or eliminates habitat and reduces food or indirectly poisons birds.

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Red-headed Woodpeckers are one of the more vulnerable species due to their reliance on open woodland and savanna habitat maintained by periodic fire and replete with snags.