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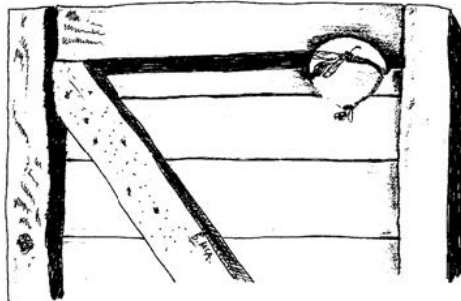


Nests High in the Trees: Piebald* Wasps

The trees have dropped their leaves, revealing much: the architecture of deciduous trees against the sky. And sunrise over a distant horizon twinkles now through those bare trunks and branches. The wind may move these, or you can move them yourself, just by swaying your own view side to side. This is a favorite moment for some of us sentimental humans. For us, the northeast summer, with leaves closing over, comes all too soon and too fast. We should move to Wyoming or Arizona. Then we would have sky galore—but maybe miss the trees and shade after all.

Who takes advantage of the cover of shade trees, up high? Our “bald-faced hornets*,” with their remarkable sculptural paper nests. They often build these way up there, hidden by leaves and safe from predators. But even if some hungry upper-story predator did tear into a paper wasp nest, looking for a meal, there would be hell to pay. These social insects must protect the next generation and are equipped to do so. They can sting, even squirt their defense into the eyes of anyone within range, causing pain and temporary blindness.

We once needed to discourage a new nest a-building, so we were careful, wearing such armor as we could muster. We approached at night, in the cool, inactive time for wasps. The nest was coming along right where we were working on our own new house. We had dug a foundation place into the hillside and some brambles hung over the diggings. Our next step was to mix cement, wash and add big stones against our slip-forms. But here was this wasp nest. So, we put on all our rain gear, got flashlights, clip-pers, and a big paper bag. Goggles, as I recall. Working together two of us big humans were able to snip off the vegetation, catch the nest in the bag, pinch together the top, and dash off into the woods to fling the whole thing



Paper wasps working on their nest.

far away from our work site. Happy ending at least for us. We live here still, almost fifty years later. As for the paper wasps, they will have had to start over. Maybe they managed, maybe not. If they died, someone will have eaten them and benefitted. We should be so lucky, ourselves, to eat or be eaten. Or at least composted.

Lately I discovered a big paper wasp nest up the road. It has been there for weeks, but I never saw it because it was hidden by leaves. Once the leaves fell and I noticed the nest, I looked for it every day, and saw waspy comings and goings at its entranceway, near the bottom tip of the tear-drop shaped nest, but up one side a little. Then one day: big changes! Someone else had found the nest and plundered it. I read up and learned that blue jays will do this. And once a jay has had a good meal at a paper wasp nest the pleasure is not forgotten. This jay will remember and find another wasp nest.

What about the attacking, stinging protectors? Not present in winter. All will have died off in the nest, including the most recent larvae. The queen has left them, gone to a hibernaculum in some protected nook, cranny, or trunk, probably under bark or in split wood. She has mated and will emerge in the spring to start over. She will get to work building a new nest, finding old wood or even paper or boards which she can pull apart with her mandibles, chew up, mix with her starchy saliva, and start making paper comb where she will lay her eggs. Often a queen picks a site up in a tree, but sometimes

hanging over a cellar hole in construction, or even against a building or, as in this drawing, inside the door of our garden toolshed.

She makes layers of comb, starts the eggs, and then covers the whole nest with a paper shell. When the eggs hatch, she goes foraging for food for the babies. These wasps eat all sorts of things: insects, vegetation, even raw meat. They chew these up and feed them to the babies. Some babies will become workers, some will be queens.

The colony grows. New queens develop and fly off to start colonies of their own, with growing larvae, workers, soldiers ready to drive off any interference. New eggs take six days to hatch and grow as larvae for eight more days. Then in nine or ten days they become adult workers. The average colony has four hundred workers and can be fourteen inches in diameter and twenty-three inches long, covered with a mottled grey paper envelope.

Once these remarkable sculptures are abandoned in the fall, they are not reused, and the last generation of larvae and workers die inside. This is easy pickings for the educated blue jay in search of a meal. The nest I have been watching now has two big holes torn in it and from where I stand fifteen feet below, I can see daylight right through these torn places.

So, the wasps live on now, reorganized into blue jays.

We should all be so useful, and maybe we can even fly next time around.

— Bonner McAllaster

**Piebald. They have striking black and white patterns on their heads and faces and are often called “Bald-faced Hornets.”*