The Outside Story

Fog Descending On Swamp Maples

By: Dan Lambert

In New England, the edge of autumn feels like no other time of year. The cool nights and warm afternoons call mid-May to mind, but the dawn woods are quiet and splashed with yellow and red. As the days teeter between summer and fall, I wonder if they belong to either of these seasons or to a season all their own.

Although our four-season calendar makes perfect astronomical sense, its simplicity masks the constant change of the northern year. In a 1991 *New York Times* essay, W. D. Wetherell offered a more nuanced approach to classifying seasons, describing springtime in the Connecticut River Valley as a progression of four phases: "the start of Red Sox coverage in the newspapers; maple syrup season; the day the ice disappears on the lakes; [and] the smelt run." But he also acknowledged the competing chronology of cabin fever, mud season, and black fly season.

For a uniform model of nature-based timekeeping, we can look 6,000 miles west to Japan. In that country, a centuries-old calendar organizes the passage of time into twenty-four mini-seasons, called *sekki*. Each mini-season encompasses three micro-seasons (or *kō*) for a total of seventy-two distinct periods of five to six days. This intricate system was adapted from Chinese sources and formalized in 1685 by the Imperial Court astronomer, Shibukawa Shunkai. Though supplanted by the western calendar in 1873, Japanese micro-seasons continue to inspire appreciation for nature's annual events. They also reveal striking parallels between Japan and New England, particularly during the transition from summer to fall.

Toward the end of August, dense morning mist shrouds Japanese valleys during a micro-season called *fukaki kiri matō*, meaning "thick fog descends." As in our region, this phenomenon continues through September, when swallows leave (*tsubame saru*) and thunder ceases (*kaminari sunawachi koe o osamu*). There is poetic comfort in the idea of fog settling over the land like a blanket. However, atmospherically astute poets understand that valley fog does not descend from above, but rather forms near the ground under conditions that often occur at this time of year.

Each night, after the September sun slips below the horizon, the earth radiates warmth into the atmosphere. If winds are calm, this radiation may cause a temperature inversion, with warm air aloft and cool air layered below. The colder, heavier air will then drain into hollows and valleys. If the air's temperature drops to the dew point, water vapor will condense into tiny, suspended droplets. These form either fog, which limits visibility to less than five-eighths of a mile, or mist, which is more transparent.

Ground fog is most likely to develop when skies are clear and the earth is wet from recent rain. In September, it may mix with *steam fog* rising off the surface of lakes and rivers. These ghostly wisps typically form in late summer and fall, when cool air moves across warm water. In my experience, they are best viewed from the margin of a mixed-wood swamp, where brilliant red maples glow through the murk.

As the sun's light strengthens, valley fog may rise up and form stratus clouds. More often, the airborne droplets dissipate and continue through the water cycle. The same molecules that form this month's thick fog will reappear in various arrangements when dew glistens white on grass (*kusa no tsuyu shiroshi*), during the time of first frost (*shimo hajimete furu*), and when fish emerge from the ice (*uo kōri o izuru*). Soon after, April showers will bring May flowers – to New England and Japan.

In fact, water molecules now coursing through our woods could one day flow through forests of Hokkaido, the great northern island of Japan. Hokkaido's mountains and valleys brighten each fall with colorful crowns of maple and birch offset by deep-green spires of spruce and fir. The individual species may differ from ours, but the spectacle does not. Through even a fine mist, Hokkaido's landscape could be mistaken for New England.

I appreciate this blur between lands and the mutability of seasons in both places. And I recognize the folly of packing nature's happenings into tidy boxes. Still, I will always think of this week as a time of fog descending on swamp maples.

Dan Lambert is assistant director of the Center for Northern Woodlands Education. He traveled to Japan as an exchange student in 1987 and vividly recalls the dawn view of valley fog from the summit of Mount Fuji. The illustration for this column was drawn by Adelaide Tyrol. The Outside Story is assigned and edited by Northern Woodlands magazine, www.northernwoodlands.org, and sponsored by the Wellborn Ecology Fund of New Hampshire Charitable Foundation: wellborn@nhcf.org.

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