The Outside Story

As Summer Wanes, Fawns Lose Their Spots

By: Laurie D. Morrissey

I have often been stopped in my tracks by the sight of a white-tailed doe standing in the lush summer grass. Depending on the sun's slant, the animal's coat is a rich shade of rusty brown or burnt orange. More delightful still is the sight of a fawn, reddish brown with scattered white dots. Deer are not the only creatures that start out spotted, but their speckled young may be among the prettiest that do.

Born between late April and early June, each fawn bears approximately 300 spots on its back and flanks. The spots are arranged in two lateral lines along the spine, from ears to tail, and randomly distributed individually or in clusters on its flanks and body. Not just decorative, these markings have a critical survival function as camouflage.

Most mammals do not perceive color, instead relying on shape to identify potential prey by sight. A fawn's spots, measuring a quarter to a half inch in diameter, help defenseless fawns blend in with the sun-dappled forest floor beneath moving stems and branches. The fawn's spots break up its outline, helping it remain hidden. (Fawns also have the advantage of being nearly scentless.)

Fawn spots have long fascinated humans. One adage suggests a fawn's sex may be determined by the arrangement of the spots it sports: "Spots in a row, it may be a doe. Spots all amuck, it may be a buck." Some people believe, conversely, that males have orderly spots, while females have scattered or zigzag spots. Another myth claims you can determine a fawn's age by the number of spots in its coat.

The number of spots a fawn has at birth doesn't change as it gets older, according to Jeannine Fleegle, a white-tailed deer biologist with the Pennsylvania Game Commission. Nor does the spot pattern of a particular fawn indicate whether it is male or female; both have lateral rows on their backs and random spots elsewhere.

While spot patterns don't indicate gender or age, however, they are unique – like a person's fingerprints – and there is evidence that the patterns are somewhat genetic. One study in Florida indicated that changing land use patterns affect the spot patterns of Key deer, a subspecies of white-tailed deer native to the Florida Keys.

"Certain spot patterns may be advantageous in certain habitats, so they would be selected for that pattern over time," said Fleegle. "If a spot

pattern is an inherited trait and that pattern helps increase survival, then a population should respond to selective pressures in the environment, creating different spot patterns. These types of changes occur slowly, over generations."

No matter what the pattern, fawns lose their spots in their first molt, when they are around three or four months old. In the Northeast, fawns are generally spotless by October. White-tailed deer of all ages complete two molts each year: once in spring and again in late summer or early fall. A deer's coat is beneficial beyond its camouflaging effects.

"It helps to keep them hidden as fawns and provides thermoregulation to help them make it through the year," Fleegle said. A deer's summer coat comprises short, thin hairs that allow excess body heat to escape. The lighter color also reflects sunlight to help the animal stay relatively cool in the heat of summer. By late fall, this is replaced with a highly insulative coat consisting of a dense layer of fine hair beneath a layer of long, hollow guard hairs. The darker, gray-brown color of a deer's winter coat absorbs heat from the sun and allows the animal to blend in better with the winter woods.

Molting starts at the head and neck, then continues down the chest, sides, and legs. The process lasts a few weeks and can make for a rather unkempt appearance. A healthy deer usually begins molting earlier than one in poor condition, and does molt later than bucks. "They're the last ones to change clothes, because molting takes a lot of energy," Fleegle said of does. "They've already carried a fetus during the worst time of year, given birth, and produced milk, which is the most energetically expensive thing a mammal does."

Spots make only a brief appearance in the life of a deer. Fortunately, however, there is a new crop of speckled fawns every spring.

Laurie D. Morrissey is a writer who lives in Hopkinton, New Hampshire. Illustration by Adelaide Murphy Tyrol. The Outside Story is assigned and edited by Northern Woodlands magazine and sponsored by the Wellborn Ecology Fund of the New Hampshire Charitable Foundation: www.nhcf.org.

Northern Woodlands
PO Box 270, Lyme, New Hampshire 03768
Tele: 603.795.0660 eFax: 603.410.4675
www.northernwoodlands.org