Nature’s Clean-Up Crew: Vultures Help Mother Nature Recycle

I have previously written about the nitrogen cycle and the water cycle as illustrations of how Mother Nature recycles matter. One of Nature’s helpers in this regard are vultures. This may not make for the most appealing discussion, but it is important to understand this essential process.

I recently came upon what appeared to be a rather fresh jackrabbit carcass in the middle of the road not far from our house. I moved it under a tree in the pasture where I could watch from my window. It was less than an hour later that I noticed the first turkey vulture on the carcass. Only a few minutes later he had the company of 4 or 5 black vultures. A little later a crested caracara came down to try his luck, but quickly felt he was out-numbered and took off. A little more than an hour after the first vulture was seen, all the vultures had departed, and a search of the area found only a couple of leg bones identifiable.

Here in the Hill Country we have two species of vultures: black vultures and turkey vultures. Black vultures have a shorter wing-span and shorter tail than turkey vultures, and they are heavier and less-agile flyers than turkey vultures. Black vultures have black or dark gray heads while turkey vultures have red heads. Black vultures are year-round residents of the Hill Country, while turkey vultures are most often seen in the summer.

Both vultures find their food by soaring over the landscape looking for dead animals. Black vultures tend to spend more time higher above the tree-level than turkey vultures because the latter are better flyers and can maneuver around trees better. Interestingly, turkey vultures are unusual in the bird world, they can find food by their sense of smell as well. This frequently results in turkey vultures finding a carcass first, but then being chased off by a group of heavier black vultures. We have noticed more than once that when we fire up the Bar-B-Q outside we see turkey vultures appearing overhead, attracted by the odor apparently.

Crested caracaras are not related to vultures, and are in fact raptors in the same family as falcons. While carrion is their main food, they are perfectly capable of catching live prey. The Hill Country is probably about the northern extent of their range.

Other raptors, including bald eagles also eat carrion, but usually in much smaller amounts than caracaras. And many small omnivorous animals also eat carrion when they find it.

I expect it is probably safe to assume vultures are not on your “favorite-bird” list. The service these animals provide places them in a biological category as detritivors, species that decompose organic matter making the nutrients contained therein available

to plants and other soil organisms. In so doing, they help to maintain or increase soil fertility and aid the growth of all vegetation.

It doesn't take much imagination to think of what things would be like without species that perform these services, so maybe vultures should be on your favorite-bird list.

So what happens to the material the vultures eat? With apologies for a less-than-appealing discussion, what they eat gets degraded and decomposed in their digestive tract. Some of the nutrients are used in the bird's body to maintain temperature and provide energy, some become part of the bird's tissues, some is fed to their young, and some becomes excrement and is spread around as the bird moves about. And when the bird dies, its tissues will be eaten or decomposed by other organisms and the cycle continues.

A healthy ecosystem is one that has healthy recycling processes taking place, the overall result is more fertile soils and a more productive landscape. We humans would probably be better off if we did a better job of recycling everything possible, and would be better stewards of the land if we helped Mother Nature take care of our land.

Remember the law of conservation of matter (or atoms) from your high school chemistry: Matter is neither created nor destroyed, just transformed from one form to another. The nitrogen in the air and carbon in carbon dioxide are transformed into proteins and carbohydrates which are in turn transformed into other forms of nitrogen and carbon, and so on and so on.

Folks, it is my intention to continue for a few weeks, weather permitting, with the one on one nature discussions on Friday mornings, 10-12, at Riverside Nature Center. Come by.

Until next time…

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