



The spring and summer of 2019 will go down as a wet one, and with all of that rainfall there has been a significant uptick in turtle activity. Box turtles like to move and forage on warm, humid mornings and we have had plenty of those. Female aquatic turtles make nesting movements onto land, and with all of the flooding, they must move farther to find a dry spot to lay eggs. While the summer of 2018 was the season of snake bite calls, the summer of 2019 has been the summer of turtle questions. Lucky for me, I enjoy turtle questions! For this issue, I'd like to address a couple of the more frequently-asked questions I get, particularly as they relate to box turtles.

Questions I'm often asked are, "Do box turtles spend their whole life in one small area?" and "Will moving them kill them?" The answers? Both yes and no. There are two species of box turtles that occur in Kansas; the Three-toed Box Turtle, a woodland dwelling species and the Ornate Box Turtle, which is a more western grass-land species. For both species, home ranges (the area that encompasses all of an animal's daily and annual activity) are quite small. Box turtles usually occupy areas 10-20 acres wide. Within these home ranges, they learn locations of critical resources, such as shelters, water, and seasonal variation in food availability. So transloca-

tions, or "moving them," can result in very lost turtles.

Several translocation studies have been conducted using box turtles displaced by development activities. In most cases, translocated turtles moved more and occupied much larger areas than resident turtles. Mortality rates of translocated turtles met and sometimes exceeded 30 percent. The turtles that survived the first year or two eventually settled into their own home range. The problem lies in the increased movements after the initial release, which result in increased mortality from predators, exposure to extreme temperatures, and being hit by vehicles.

The woodland dwelling three-toed box turtle seems to fare a little better when translocated as compared to the ornate box turtle. Dense leaf litter in woodland environments may provide a buffer against extreme hot and cold weather – a buffer not available out

on the plains. Ultimately, moving box turtles outside of their known area can have fatal consequences. The best course of action to take? Always release turtles at the same point of capture.

And if you see a box turtle, or any turtle on the road, you can stop and help them across as long as it is safe for you to do so. Simply move the turtle in the direction it was heading and release it well off the road so it will be least likely to walk back out into traffic. If you cannot safely move the turtle off the road, at least try to not to run it over as long it is safe for you to move slightly out of the way.

I can happily say I have observed a slight shift in the values of drivers the last few decades. I remember in the 1980s when I would see people run over turtles on purpose. Now, I see more drivers than not trying to avoid turtles. Reducing road mortality, particularly in water turtles, is becoming more critical than ever in high traffic areas. As I mentioned earlier, female water turtles must leave the water to find a dry place to nest. Research has shown in high traffic areas the bulk of road mortality is female turtles, resulting in very male-biased populations – not a very conducive situation for maintaining a population!