

# The West Nile Weekly

## What does this week look like historically?

Historically, around 25% of total cases for the year, about 1 in 4, have been transmitted by the end of this week. This week in most years is either the peak of transmission or is slightly after the peak.

## What to expect?

Current estimates still indicate that 2018 is an above-average year for WNV in SD and the model suggests that we are one week after peak risk for 2018 (Fig. 1).

Just five counties are at average risk for this point in the year (Fig. 2). This still implies considerable risk of transmission, and even if risk this week is lower than risk last week, we still expect around thirteen counties to have cases transmitted during this week.

## How are the mosquitoes?

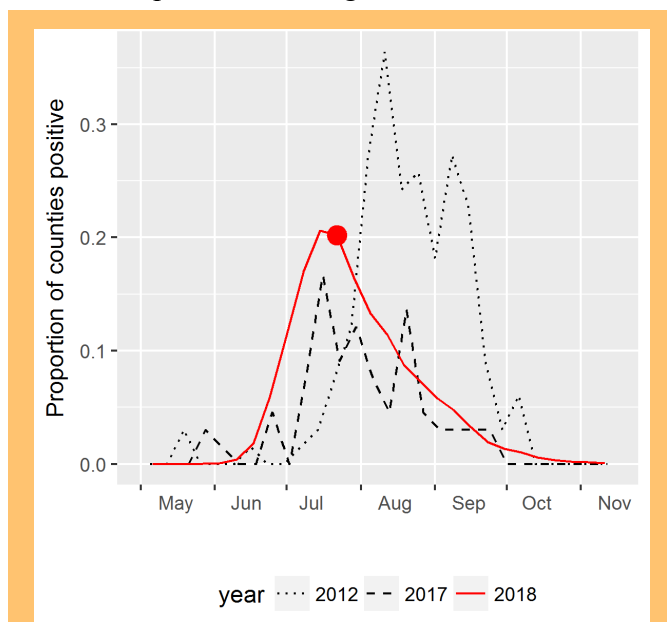
With 846 pools tested, we have 18 (2.1%) of *Culex tarsalis* pools positive. This is a small drop in the rate from last week (2.3%). This is good news, since infections in mosquitoes have begun to slow down.

## Current recommendations?

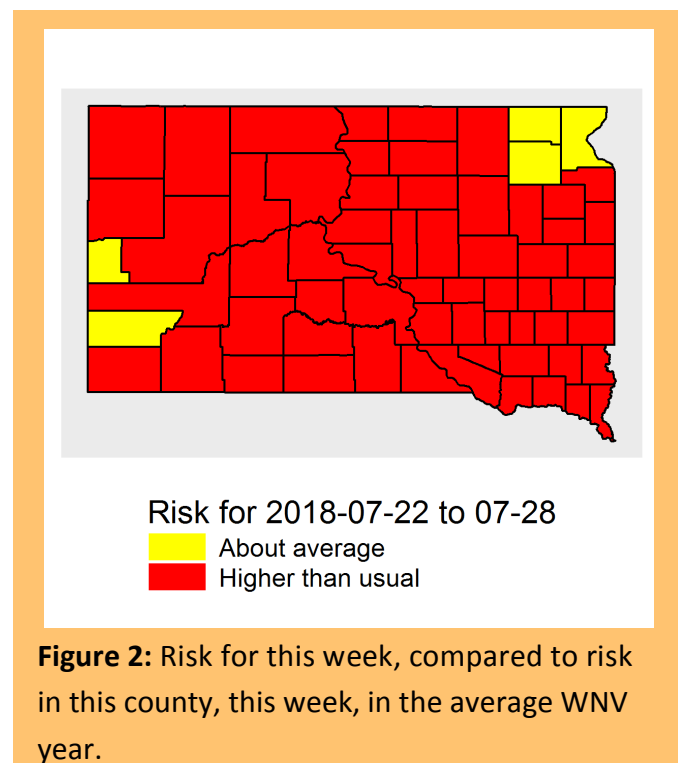
Every piece of evidence still indicates that this will be an above-average year for WNV in SD, except for one: the lack of human cases so far.

The Department of Health has so far reported no human cases, but reports that there have been four viremic blood donors. Keep in mind that viremic blood donors are detected and reported more rapidly than human cases, who first have to show symptoms and then see a doctor. Viremic blood donors, historically, are only 7.4% of all infections we've seen, so four viremic donors implies around 50 cases already infected, but yet to be reported, if historical patterns hold.

In other words, we still recommend mosquito control and warnings to the public when possible. It would be easy to become complacent, given the lack of human cases, but viremic blood donors have been infected, the virus is circulating, and we are just a week after the projected peak of transmission. Nearly 3 in 4 cases are still to be transmitted during the 2018 WNV season.



**Figure 1:** Estimated risk in 2018 with the week beginning 07-22 emphasized by a dot. This year is compared to observations in 2012 and 2017.



**Figure 2:** Risk for this week, compared to risk in this county, this week, in the average WNV year.