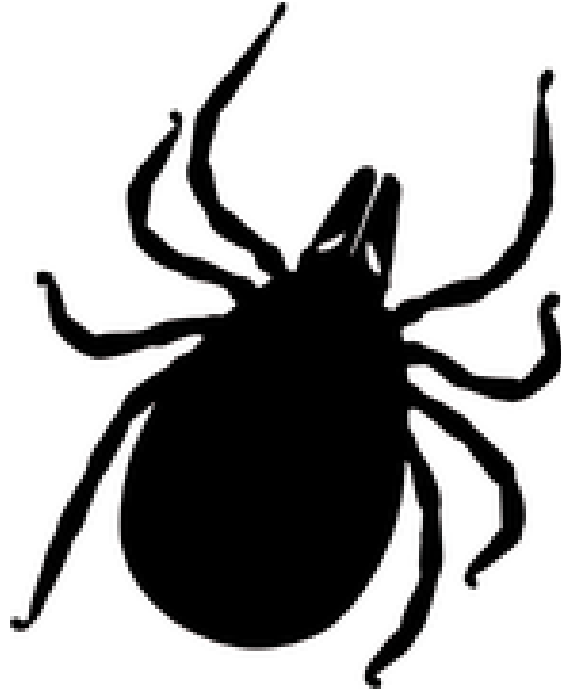


North Dakota Tick Surveillance Program Annual Report



2021

North Dakota Department of Health
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**2021 North Dakota Tick
Surveillance Program's Mission**

Through tick collection and speciation, the North Dakota Department of Health (NDDoH) monitors the risk of infection from tickborne pathogens known to exist in this region. The North Dakota Tick Surveillance Team focuses on *Dermacentor variabilis* and *Ixodes scapularis* for pathogen identification.

North Dakota Tick Surveillance Program Background

In 2017, the North Dakota Department of Health (NDDoH) started a tick surveillance program. Twenty-eight veterinarians and zoos were contacted from around the state and asked to collect ticks from animals and submit them to NDDoH for identification and testing. Tick season ran from April 1st through the end of October.

In 2018, the tick surveillance program expanded to include thirty-seven veterinarians and zoos, as well as seven Game and Fish staff and sixteen Wildlife Service staff. There was also one active surveillance submitter from Grassy Butte.

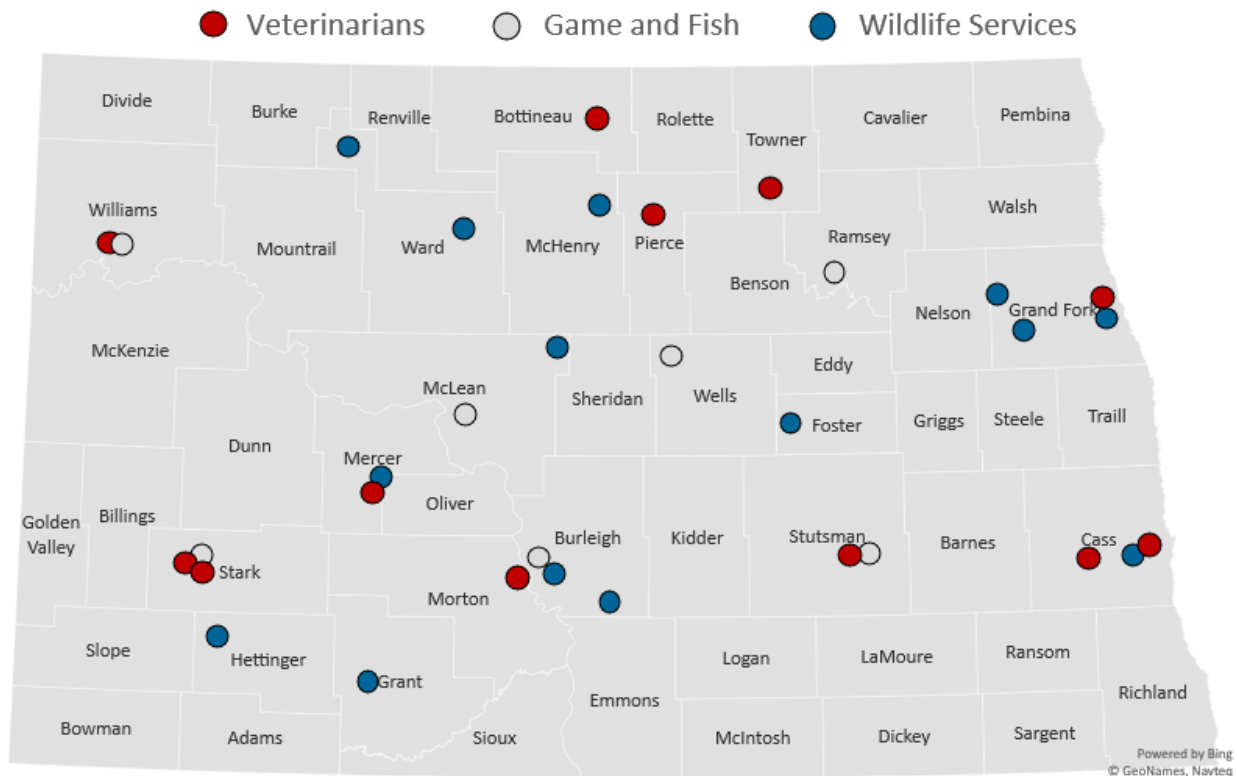
In 2019 the tick collection season ran from April 1st to December 1st. In May, five tick drags were performed by Department of Health employees and as a result 89 *Dermacentor* ticks were collected and tested. In 2019 the tick surveillance program introduced ND Tick Email submissions, NDTicks@ND.gov. Through this email service, the public can submit images of ticks they have found for identification. Additionally, any ticks submitted through email can also be submitted through the mail if the tick is of interest to the Department of Health. Of the 34 email submissions received, five ticks were identified as *Ixodes* and four ticks were identified as Lone star ticks. In 2019, the tick surveillance program expanded to include thirty-nine veterinarians and zoos as well as seven Game and Fish and sixteen Wildlife Service sites. We also maintained one active surveillance submitter from Grassy Butte.

Due to the COVID-19 pandemic, tick surveillance did not take place in 2020.

Tick surveillance resumed in 2021, running from week 1 beginning April 5th to the last submission on August 22nd in week 20. On May 28th and June 18th, tick drags were performed by Department of Health employees (active surveillance). Fifty-seven *Dermacentor* ticks were collected on May 28th, and three *Dermacentor* ticks were collected on June 18th. One additional tick was caught using a trap that was set to run while conducting tick drags in Emmons County on June 18th (active surveillance). An additional ten images of ticks were submitted via the ND Tick email; five *Dermacentor* ticks, and five unidentified engorged ticks. No ticks were submitted via postal mail. Passive tick surveillance (collection from animals) was pared down to include 12 veterinarians, 7 Game and Fish, and 14 Wildlife Service sites. No ticks were tested for pathogens in 2021. NDDoH also experimented with conducting trapping via CO₂ traps at several locations. Sites were chosen based on previous counties that submitted *Ixodes* ticks in 2019. Although trapping was unsuccessful with no additional data to report, the experience did provide valuable experience in learning about trap set-up and determinations of success.

2021 Passive Tick Surveillance Sites

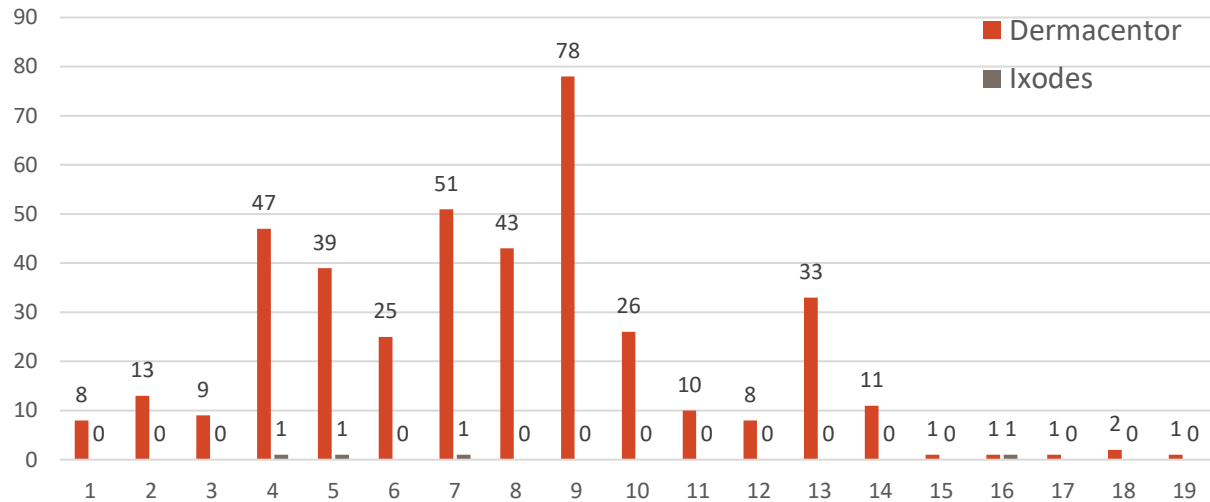
Collection partner locations are seen in the map below. Red dots correspond with veterinarians, gray dots for base locations of Game and Fish staff, and blue dots for base locations of Wildlife Services staff. Ticks collected by each partner may have come from other locations depending on where animals going to a veterinarian live, and whether Game and Fish or Wildlife Services staff travel to other locations within their jurisdiction.



Submitting Veterinarians, Game and Fish, and Wildlife Services	
Veterinarians	
Name	City in ND
All Pets Hospital	Grand Forks
Casselton Veterinary	Casselton
Casselton Veterinary Service-Fargo	Fargo
Dr. Dawn's Pet Shop	Jamestown
Gibbens Veterinary Service	Cando
Heart River Animal Hospital	Mandan
Knife River Veterinary Clinic	Beulah
Rugby Veterinary Service	Rugby
State Ave Vet	Dickinson
Turtle Mountain Veterinary Service	Bottineau
West Dakota Veterinary Clinic	Dickinson
Western Veterinary Clinic	Williston
Game and Fish	
Game and Fish- Bismarck	Bismarck
Game and Fish- Devils Lake	Devils Lake
Game and Fish- Dickinson	Dickinson
Game and Fish- Lonetree WMA	Harvey
Game and Fish- Riverdale	Riverdale
Game and Fish- Jamestown	Jamestown
Game and Fish- Williston	Williston
Wildlife Services	
Brent Belland	New England
Jeremy Duckwitz	Moffit
Aaron Freund	Towner
Tyler Haase	Kenmare
Mike Halstead	Elgin
Rick Tischaefter	Butte
Dean Janzen	Niagara
Nick Suzda	Minot AFB
Cody Krause	Carrington
Joshua Kuechle	Grand Forks
Nat Bornsen	Larimore
Kirby Morgenstern	Beulah
Wade Jones	Bismarck
Tony Halpin	West Fargo

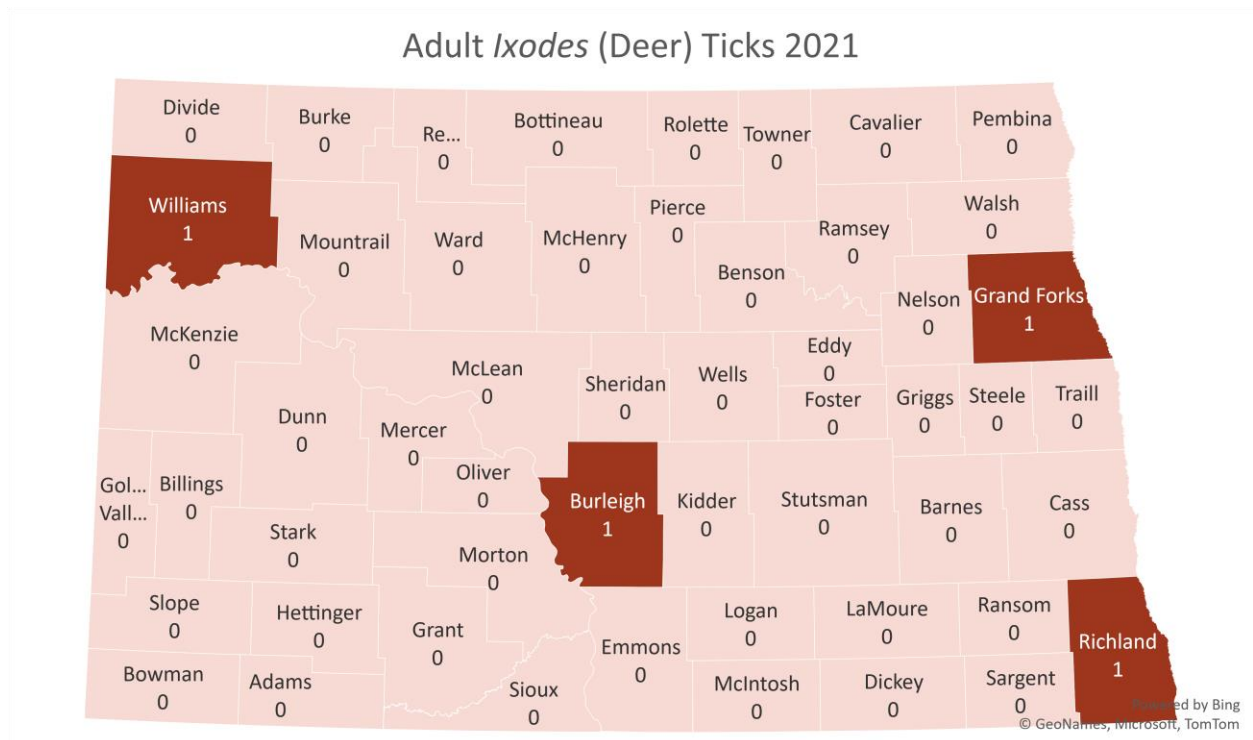
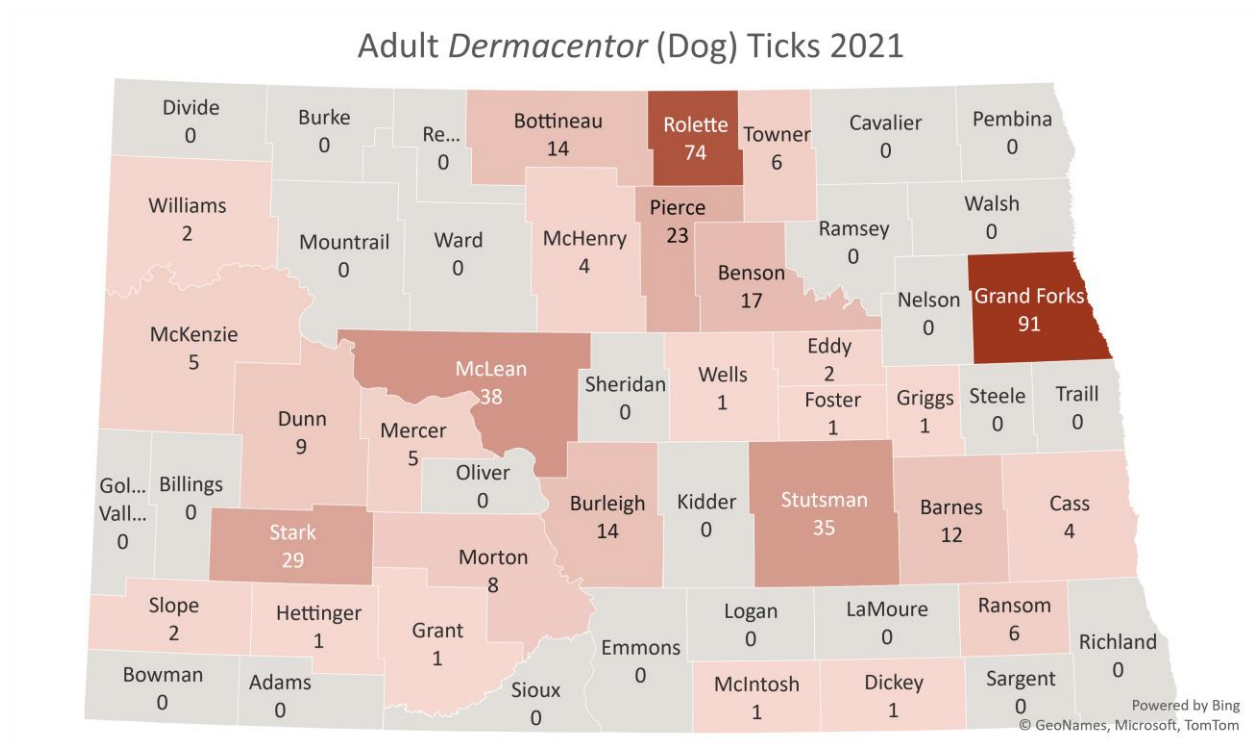
Tick Submissions by Week

A total of 407 *Dermacentor variabilis* “Dog” ticks, and four *Ixodes scapularis* “Deer” tick were collected via passive surveillance. Values on the x-axis correspond with collection weeks shown in the table below.



2021 Tick Surveillance	
Week	Collection Week
1	April 5- April 11
2	April 12- April 18
3	April 19- April 25
4	April 26- May 2
5	May 3- May 9
6	May 10- May 16
7	May 17- May 23
8	May 24- May 30
9	May 31- June 6
10	June 7- June 13
11	June 14- June 20
12	June 21- June 27
13	June 28- July 4
14	July 5- July 11
15	July 12- July 18
16	July 19- July 25
17	July 26- August 1
18	August 2- August 8
19	August 9- August 15
20	August 16- August 22

Passive Tick Submission by County



Resources

For additional resources on past tick data, tickborne disease, and how to handle ticks, please visit the NDHHS website at: [Tickborne Diseases | Health and Human Services North Dakota](#). Additional information concerning ticks can be found on the CDC website at: [Ticks | Ticks | CDC](#).