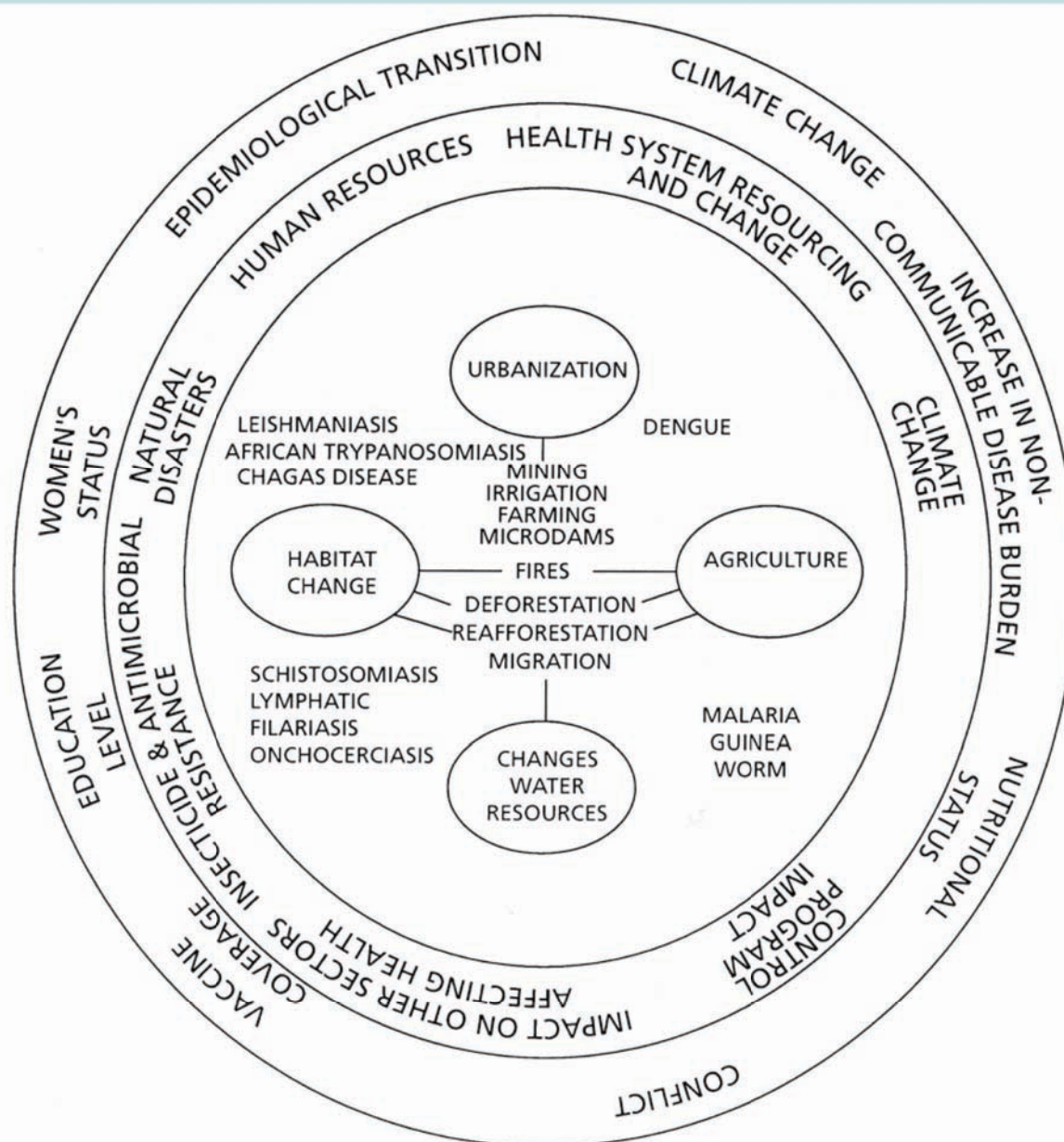
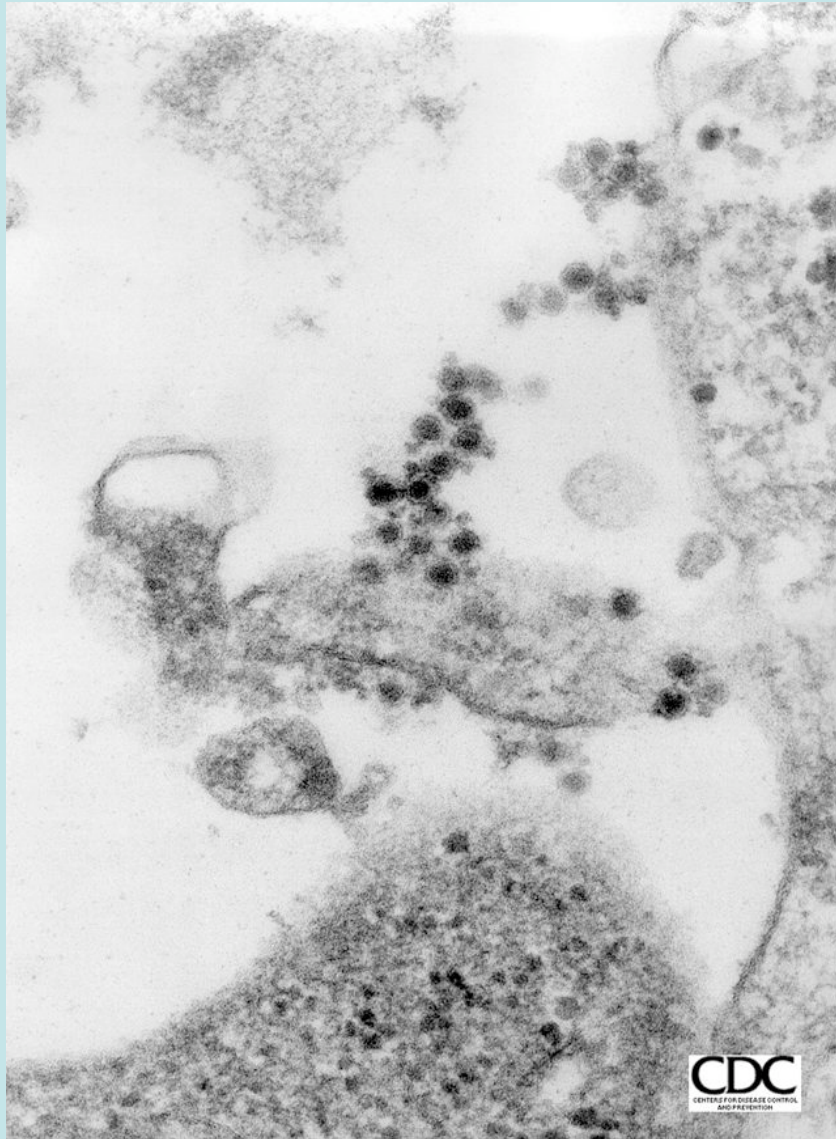


West Nile Virus
2005





Relationships and interactions between sectors intervention, environment and vector-borne infection (Molyneux 2001)



The West Nile Virus

Other Flaviviruses:

Yellow Fever

St. Louis Encephalitis

Western Equine Encephalitis

Eastern Equine Encephalitis

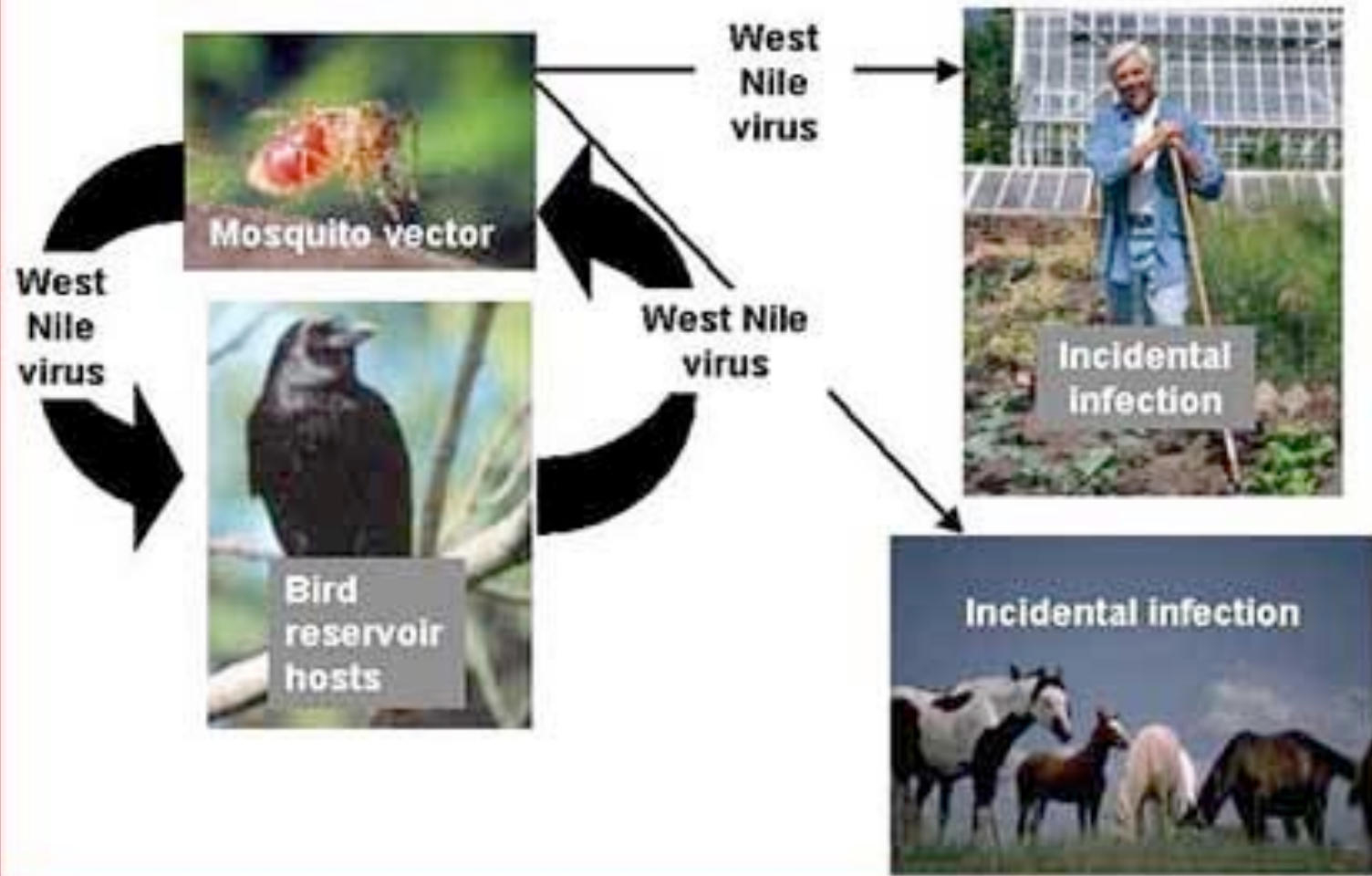
LaCrosse Virus

Dengue Fever Virus





West Nile Virus Transmission Cycle



130 species of birds have been infected, so far.



WNV in Wildlife

West Nile virus (WNV) is carried by birds, and in the wild, has only been known to be transmitted from bird to bird by mosquitoes. Birds in the "enzootic cycle" are relatively resistant to disease, and serve to maintain the virus in the avian population. Susceptible avian species and mammals may be infected when bitten by a "bridge vector" mosquito (one which will feed on birds and mammals), which essentially takes the virus out of the enzootic cycle. Birds in the family Corvidae—crows, blue jays, and ravens—have proven to be especially susceptible to West Nile virus (WNV) infection, and have been the focus of WNV surveillance efforts across the United States and Canada.

American Crow



KEVIN AND JAY MCGOWAN

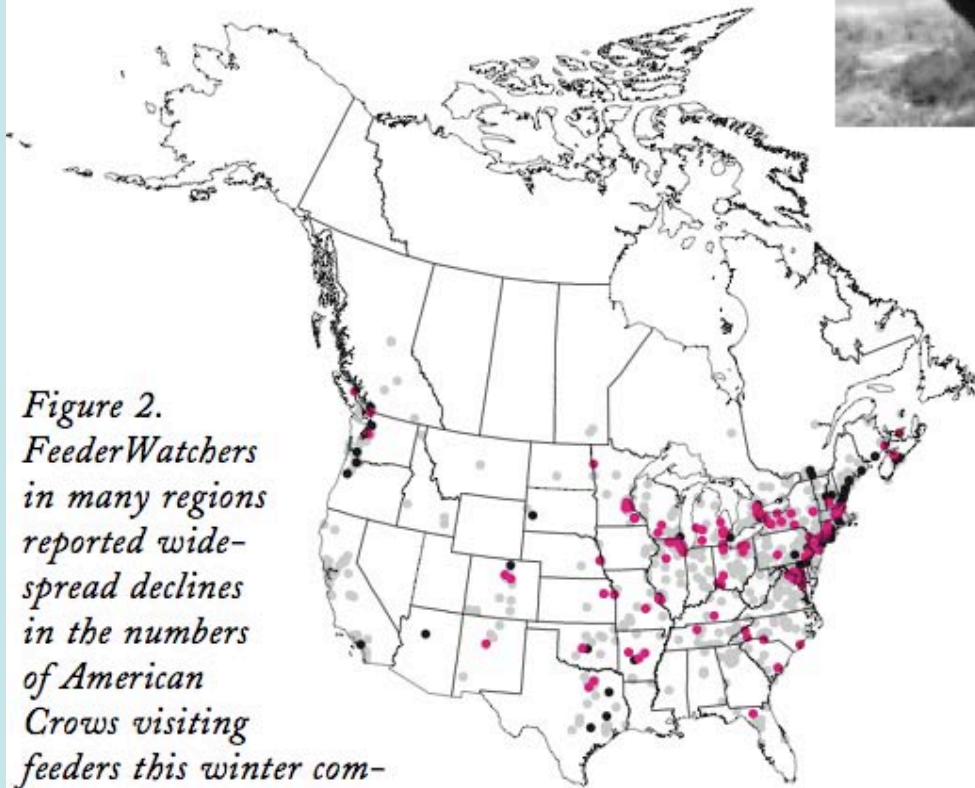


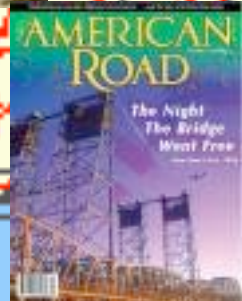
Figure 2. FeederWatchers in many regions reported widespread declines in the numbers of American Crows visiting feeders this winter compared with the previous winter. Crows are known to be highly susceptible to West Nile virus.

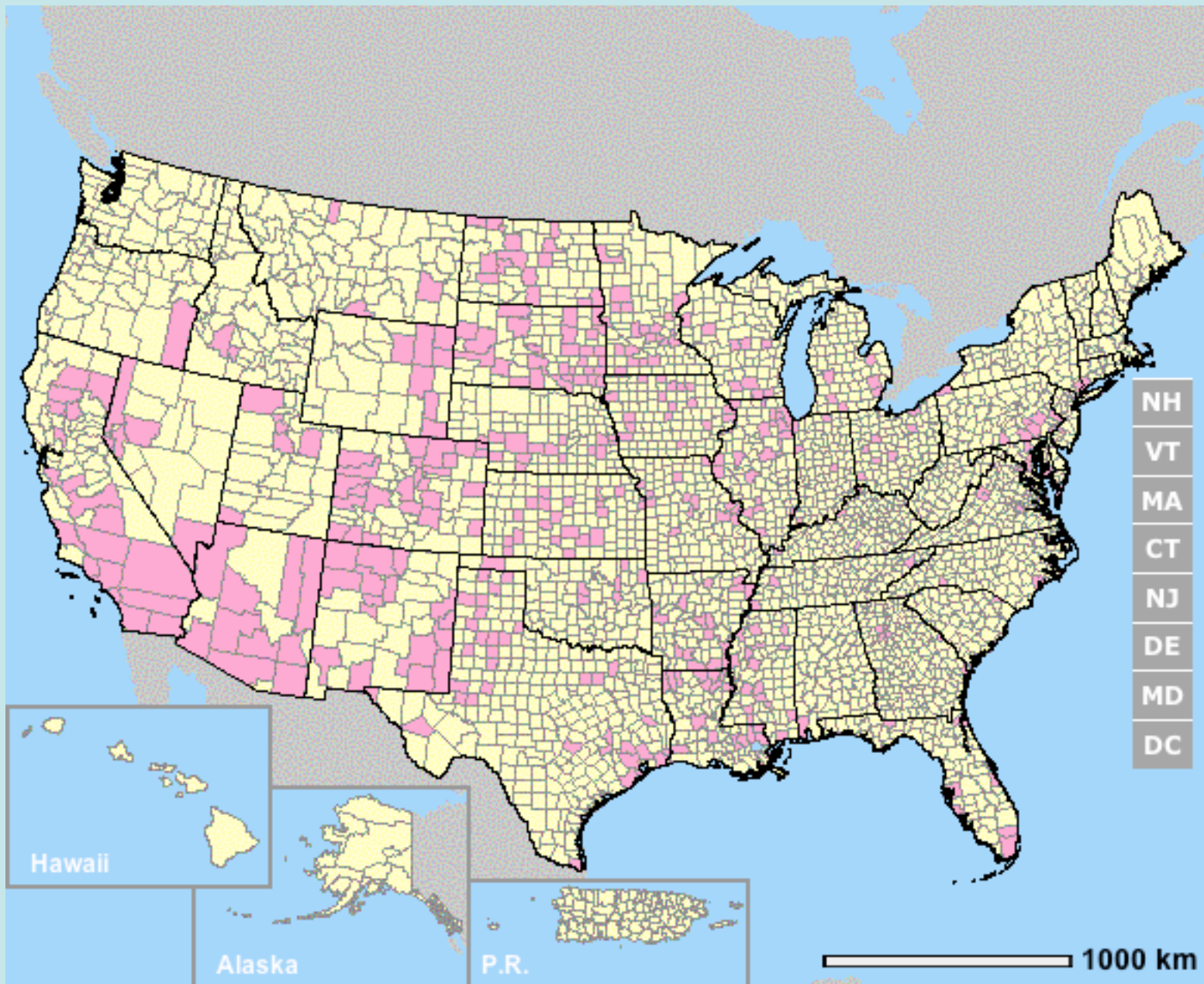
- = significant decreases*
- = significant increases*
- = no change

**Changes that consistently exceeded the magnitude of normal count-to-count variation.*

Flyways of North America





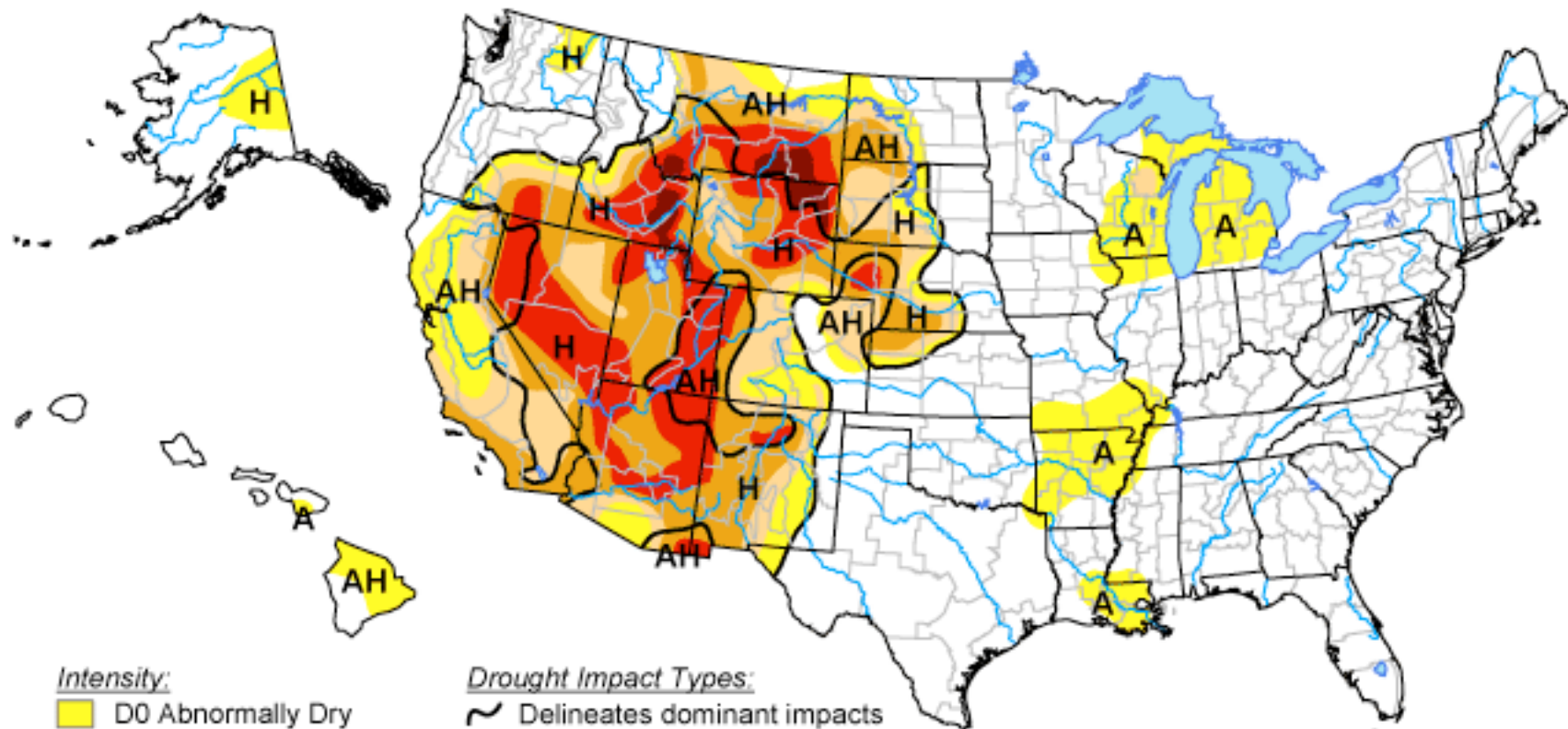


Cumulative 2004 Data as of 3 am, Oct 15, 2004






U.S. Drought Monitor

September 28, 2004


Valid 8 a.m. EDT



Intensity:

-  D0 Abnormally Dry
-  D1 Drought - Moderate
-  D2 Drought - Severe
-  D3 Drought - Extreme
-  D4 Drought - Exceptional

Drought Impact Types:

-  Delineates dominant impacts
- A = Agricultural (crops, pastures, grasslands)
- H = Hydrological (water)
- (No type = Both impacts)

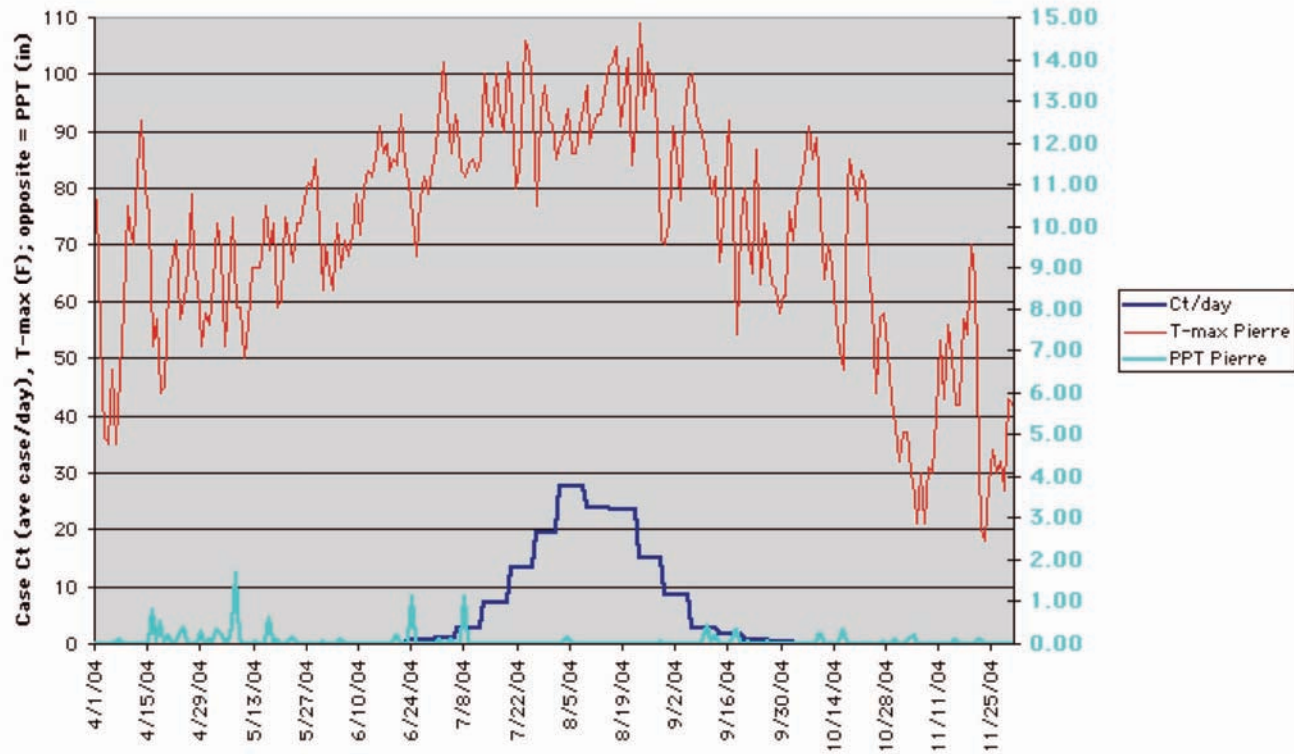
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>



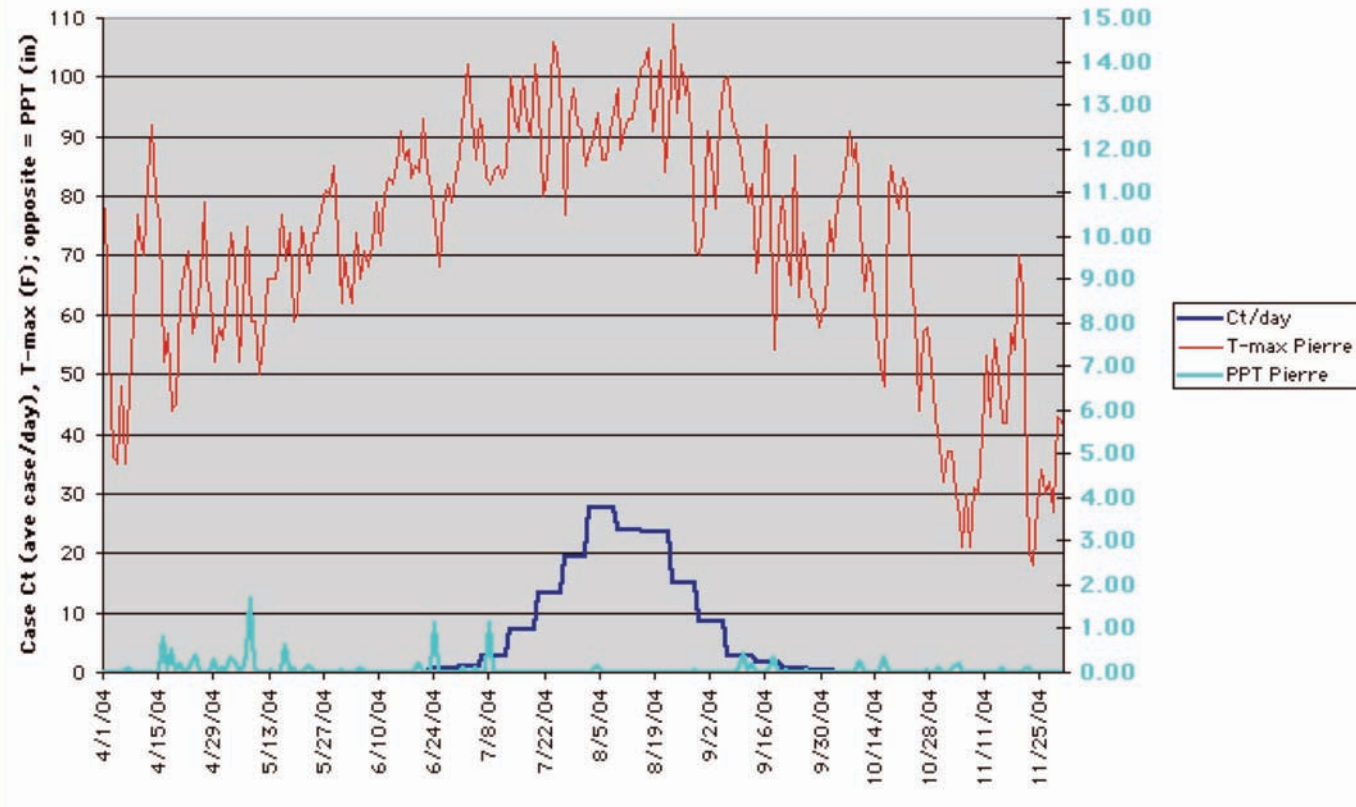
Released Thursday, September 30, 2004
Author: Brad Rippey, U.S. Department of Agriculture

Pierre, SD: 2003 WNV Human Cases, Daily Max Temp and Precipitation



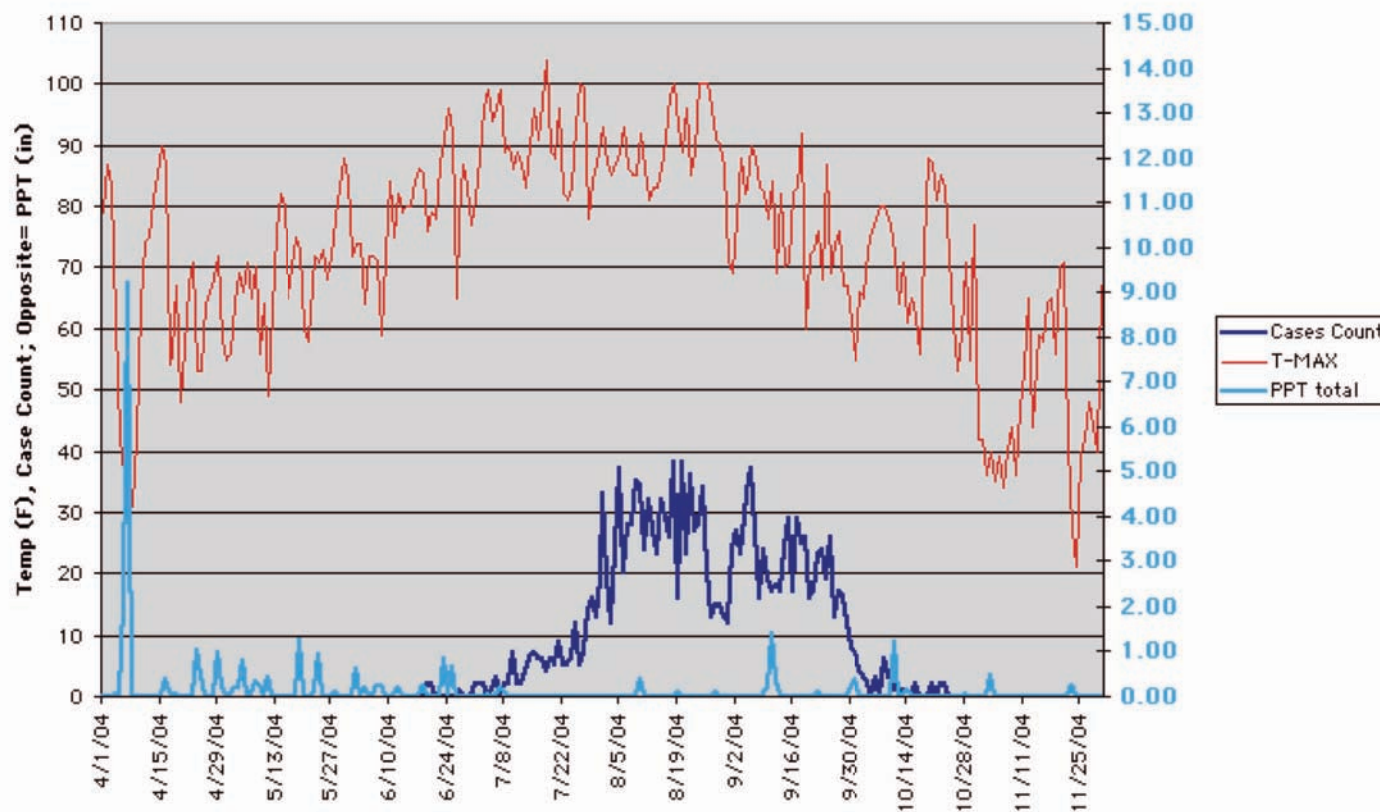
Data collected by Nicole Arshenko

Pierre, SD: 2003 WNV Human Cases, Daily Max Temp and Precipitation



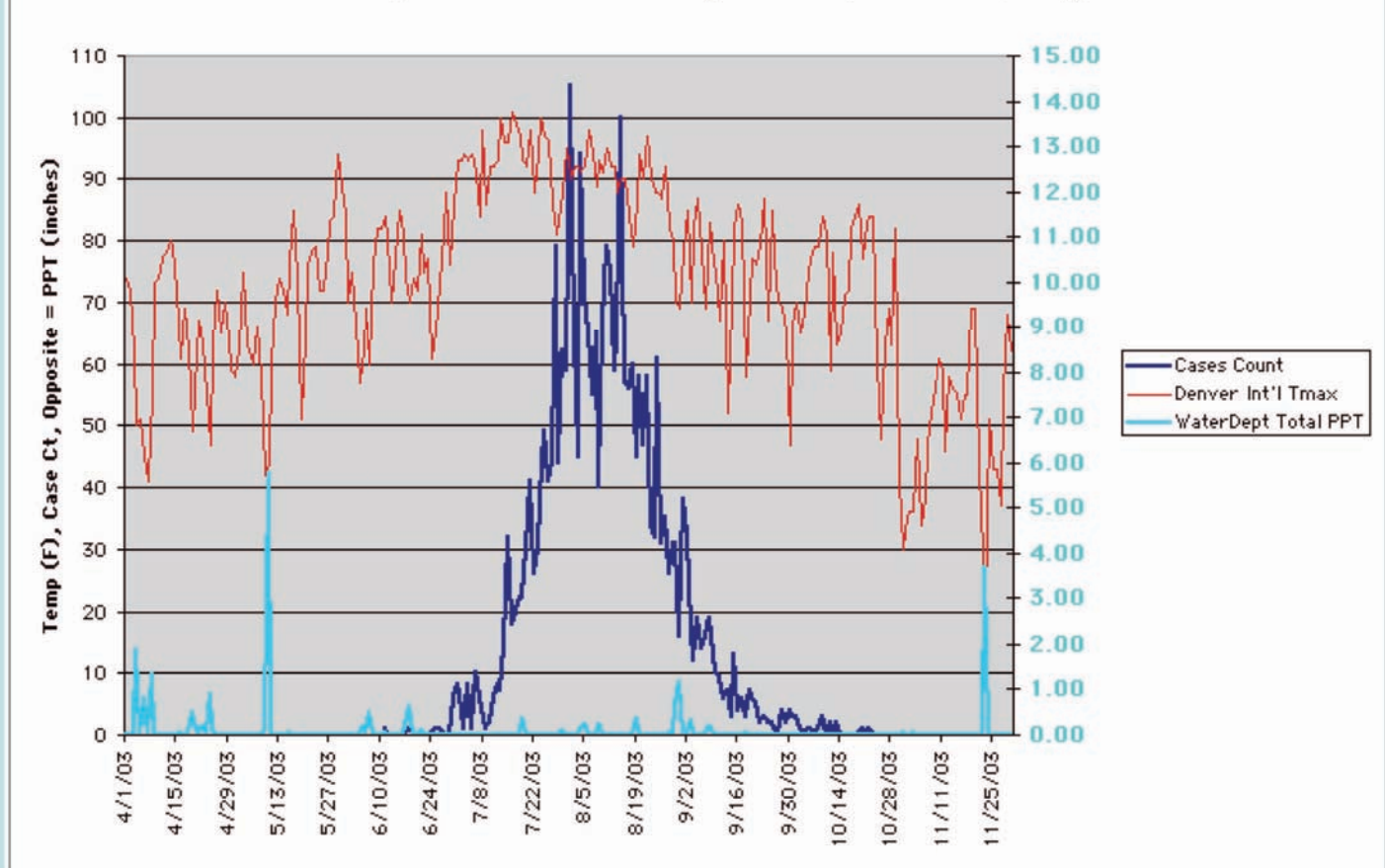
Data collected by Nicole Arshenko

2003 Nebraska WNV: Human Cases, T-Max, and Precipitation (Daily)



Data collected by Nicole Arshenko

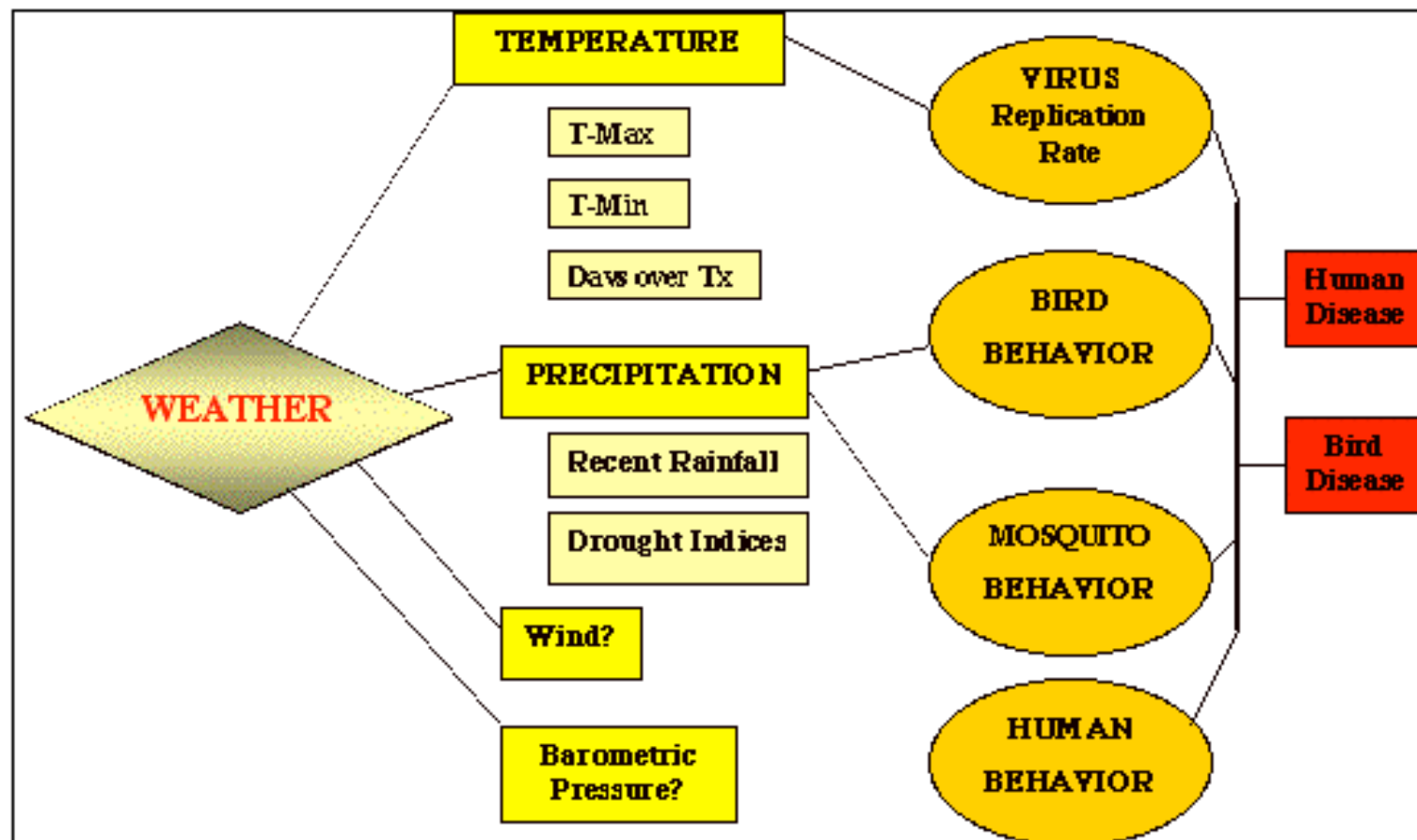
Denver, CO: 2003 WNV Cases, Max Temp and PPT (Daily)



Data collected by Nicole Arshenko

Hypothesis: Ecology of Transmission of WNV to Humans

[\[Back to Out](#)



Drought-Induced Amplification and Epidemic Transmission of West Nile Virus in Southern Florida

JEFFREY SHAMAN, JONATHAN F. DAY,¹ AND MARC STIEGLITZ²

Department of Earth and Planetary Sciences, Harvard University, Cambridge, MA 02138

J. Med. Entomol. 42(2): 134-141 (2005)

ABSTRACT We show that the spatial-temporal variability of human West Nile (WN) cases and the transmission of West Nile virus (WNV) to sentinel chickens are associated with the spatial-temporal variability of drought and wetting in southern Florida. Land surface wetness conditions at 52 sites in 31 counties in southern Florida for 2001-2003 were simulated and compared with the occurrence of human WN cases and the transmission of WNV to sentinel chickens within these counties. Both WNV transmission to sentinel chickens and the occurrence of human WN cases were associated with drought 2-6 mo prior and land surface wetting 0.5-1.5 mo prior. These dynamics are similar to the amplification and transmission patterns found in southern Florida for the closely related St. Louis encephalitis virus. Drought brings avian hosts and vector mosquitoes into close contact and facilitates the epizootic cycling and amplification of the arboviruses within these populations. Southern Florida has not recorded a severe, widespread drought since the introduction of WNV into the state in 2001. Our results indicate that widespread drought in the spring followed by wetting during summer greatly increase the probability of a WNV epidemic in southern Florida.

KEY WORDS West Nile virus, amplification, transmission, *Culex nigripalpus*, drought

SINCE IT FIRST APPEARED in New York City during summer 1999 (Marfin and Gubler 2001), West Nile virus (WNV) has spread throughout most of North America and has become a considerable public health concern. The processes driving rates of WNV transmission are still not well understood; however, the epidemiology of WNV in Florida is similar to that of St. Louis encephalitis virus (SLEV) (Rutledge et al. 2003). Four years of sentinel chicken surveillance in Florida (2001-present) support this observation and show that WNV transmission patterns are remarkably similar to those observed for SLEV transmission (Day and Stark 1996), although transmission rates of WNV are higher than those observed for SLEV. Both WNV and SLEV are maintained in an enzootic cycle involving avian amplifying hosts and vector mosquitoes (Day and Stark 1999; Sardelis et al. 2001; Komar et al. 2003). In southern Florida, *Culex nigripalpus* Theobald is the demonstrated enzootic and epidemic vector of SLEV (Chamberlain et al. 1964; Dow et al. 1964; Shroyer 1991). This mosquito has been shown to be a competent vector of WNV (Sardelis et al. 2001), and transmission of WNV by *Cx. nigripalpus* in the field has been documented (Rutledge et al. 2003).

During the 3 yr that complete annual WNV transmission cycles have been observed in Florida (2001-2003), sporadic and focal transmission have been reported (Blackmore et al. 2003). Florida has yet to record a major WNV epidemic. The WNV transmission patterns reported thus far in Florida (sporadic, focal, and rare epidemics) are very similar to transmission patterns reported for SLEV in the same region (Day and Stark 2000). A notable difference in this comparison is that there seem to be many more human cases reported during focal and sporadic outbreaks. This suggests that the number of infected mosquitoes is elevated during the amplification and early epidemic phases of the Florida arboviral transmission cycle (Day and Curtis 1999). A possible explanation for this is that wild birds and vector mosquitoes are more susceptible to infection with WNV and that wild birds may experience prolonged, elevated viremia (Komar et al. 2003).

Recently, we found an association between antecedent drought, coincident wetting, and transmission of SLEV in Indian River County, Florida (Shaman et al. 2002a, 2004a). We used a dynamic hydrology model (Stieglitz et al. 1997; Shaman et al. 2002b) to hindcast mean area water table depth (WTD), a measure of local land surface wetness, in Indian River County, and compared this simulated WTD to sentinel chicken seroconversion data. In Florida, seroconversions of sentinel chickens have been strongly correlated with the clinical disease in humans (Day and Stark 2000).

¹ Florida Medical Entomology Laboratory, Institute of Food and Agricultural Sciences, University of Florida, Vero Beach, FL 32962.

² School of Civil and Environmental Engineering and School of Earth and Atmospheric Sciences, Georgia Institute of Technology, Atlanta, GA 30332.



West Nile Story

Dickson Despommier



West Nile Story

by
Dickson Despommier



A New Virus in the New World

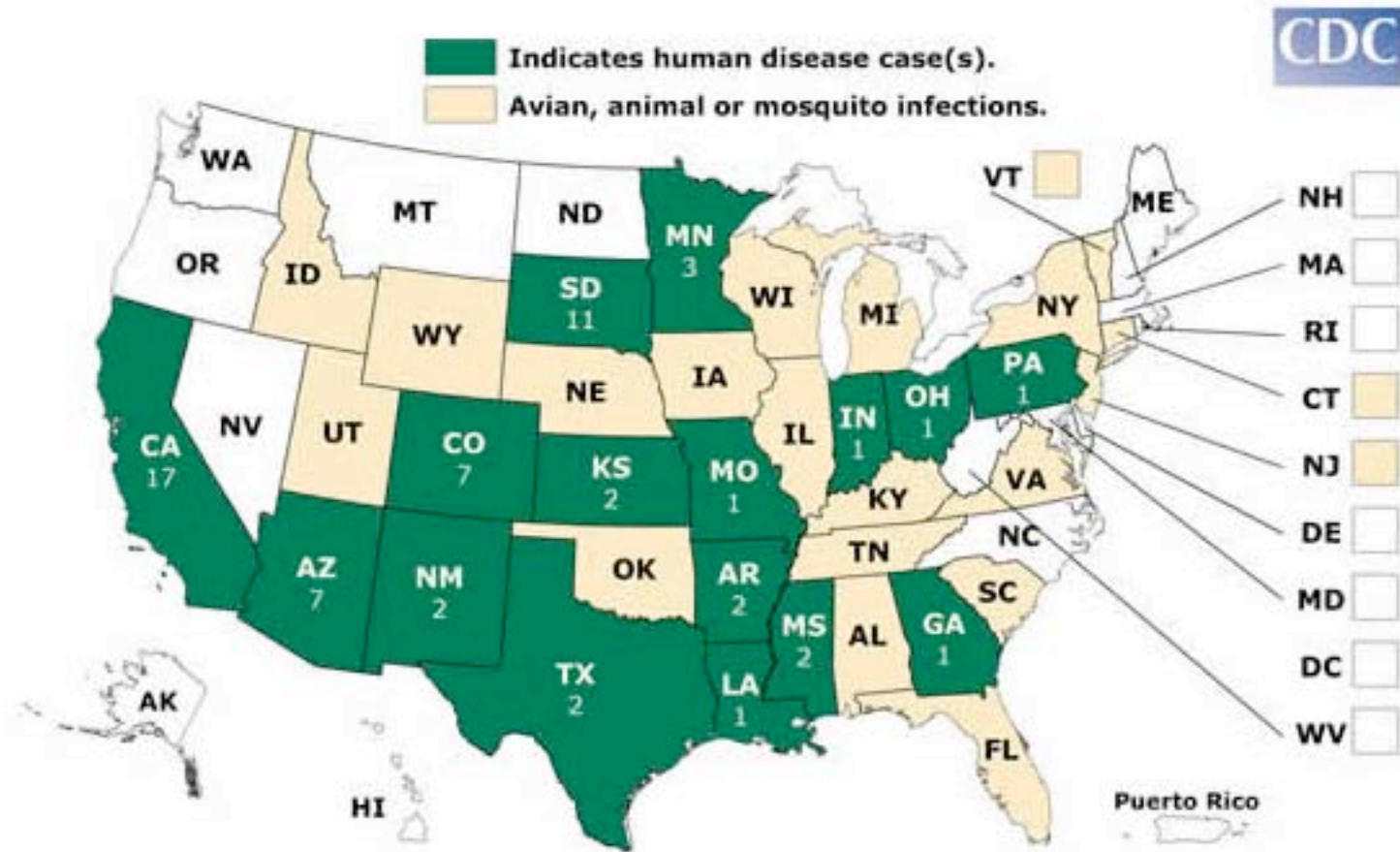


Does weather and climate determine who will become infected with the West Nile Virus?



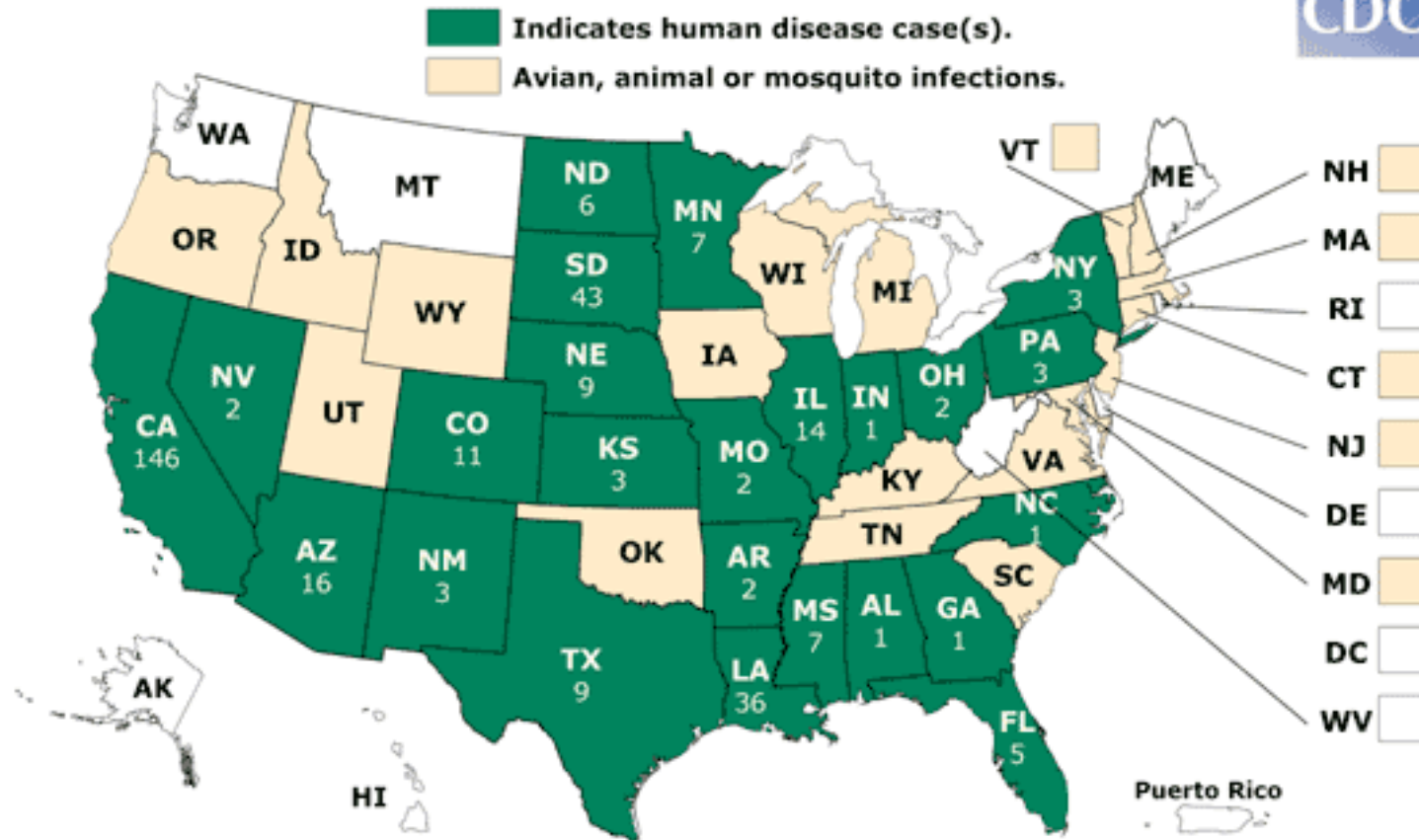
2005 West Nile Virus Activity in the United States (Reported to CDC as of July 26, 2005)*

[Click on the map for a printer friendly version.](#)



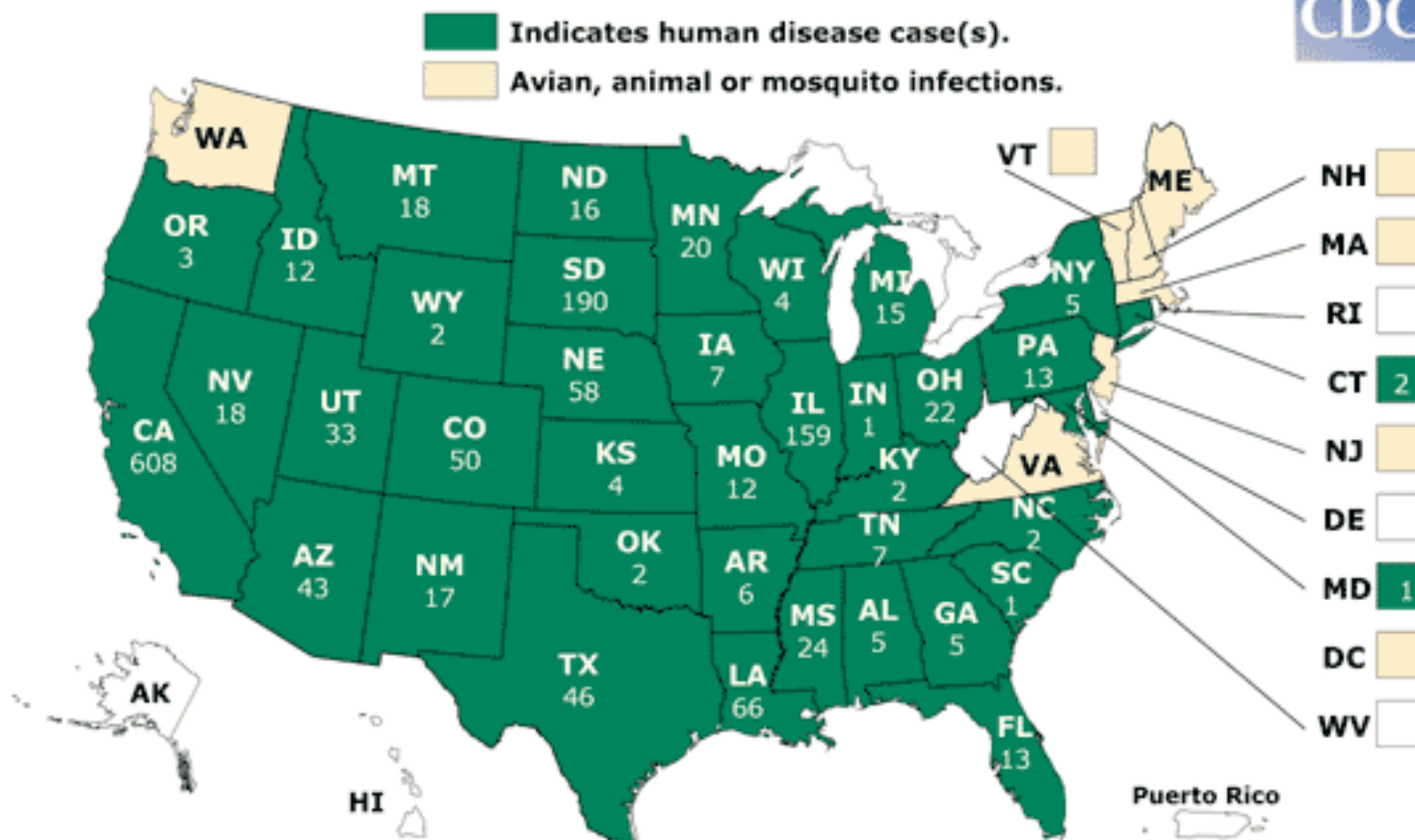
2005 West Nile Virus Activity in the United States (Reported to CDC as of August 16, 2005)*

[Click on the map for a printer friendly version.](#)



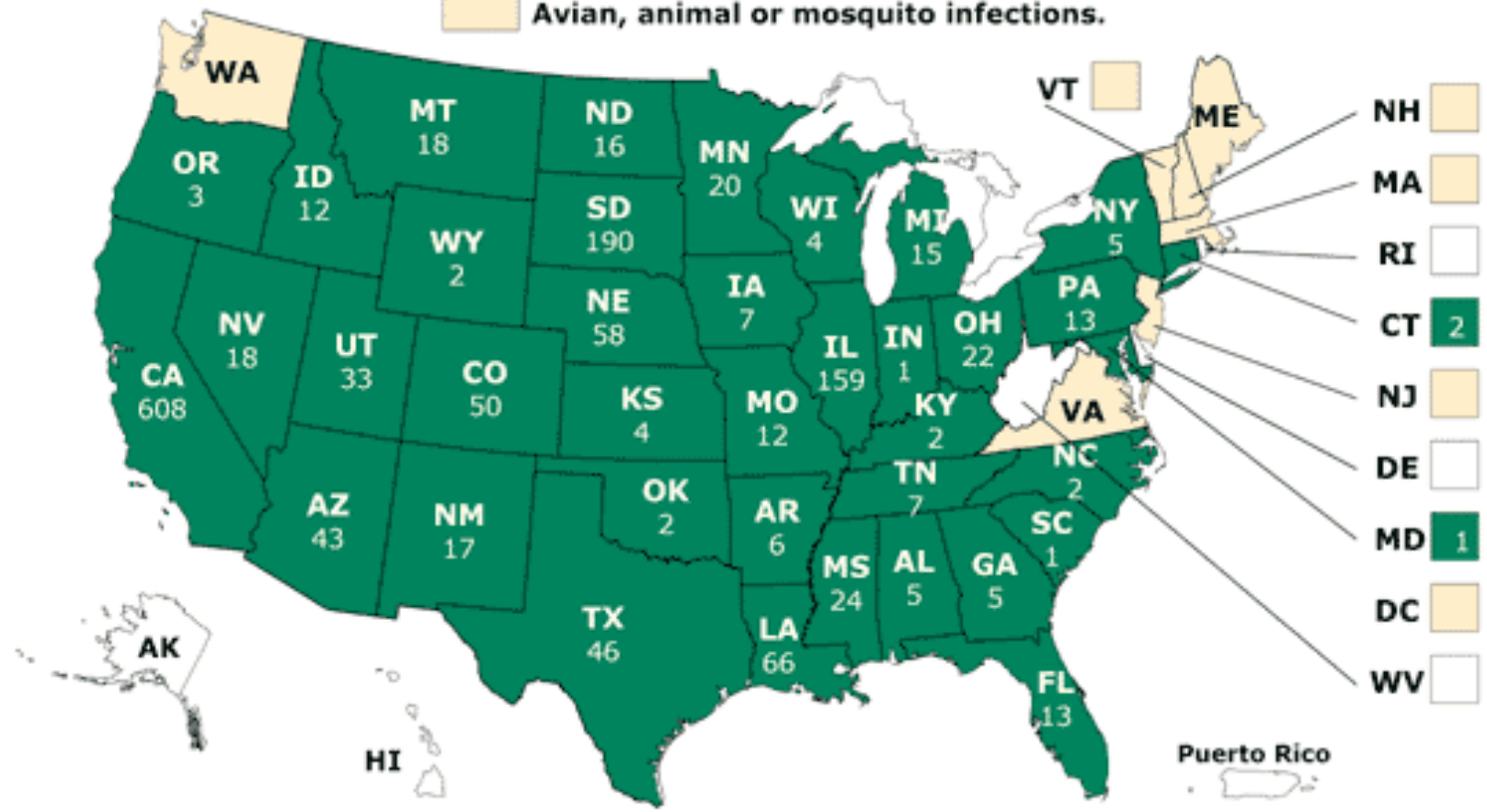
2005 West Nile Virus Activity in the United States (Reported to CDC as of September 20, 2005)*

[Click on the map for a printer friendly version.](#)



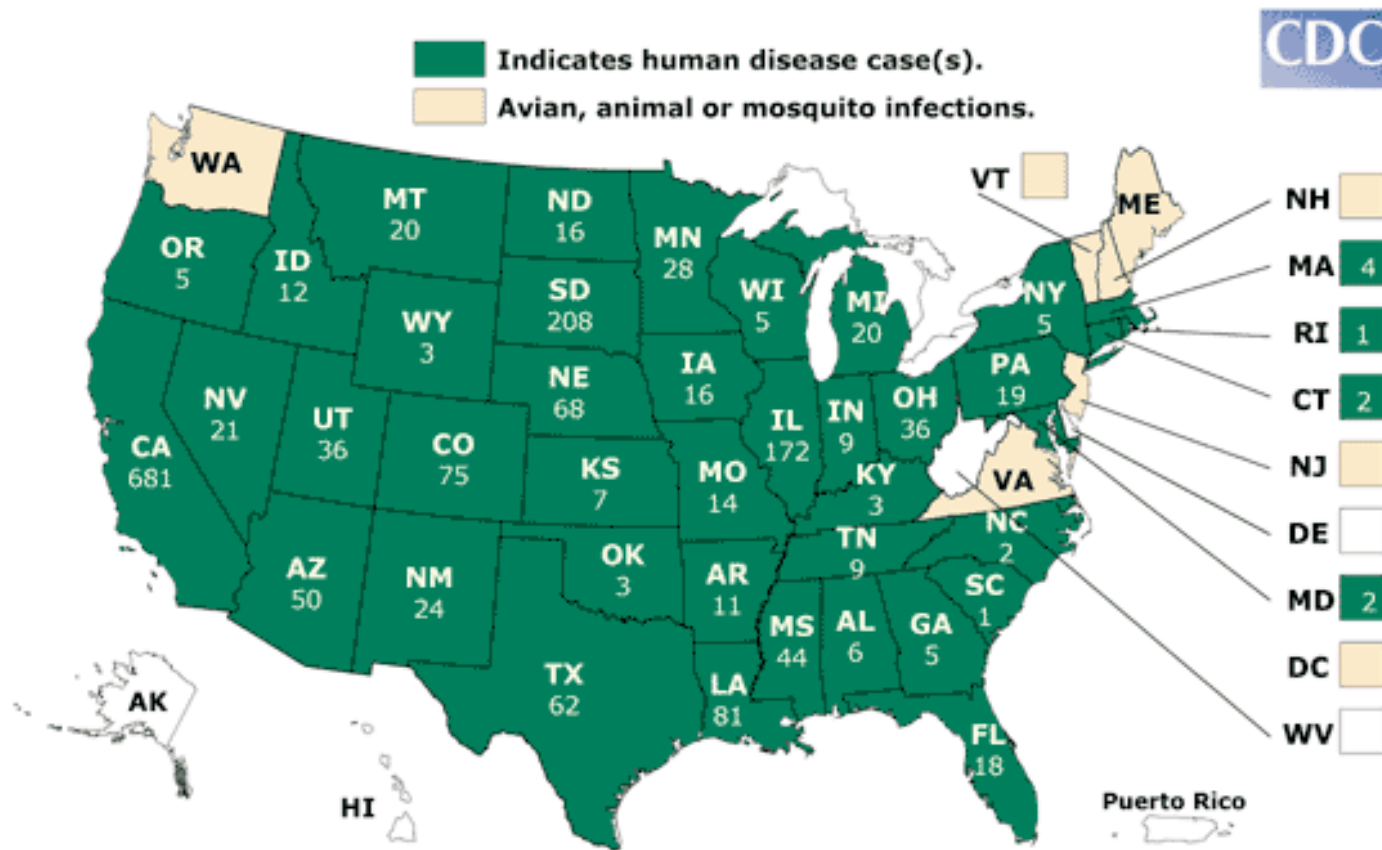


Indicates human disease case(s).
Avian, animal or mosquito infections.



2005 West Nile Virus Activity in the United States (Reported to CDC as of September 27, 2005)*

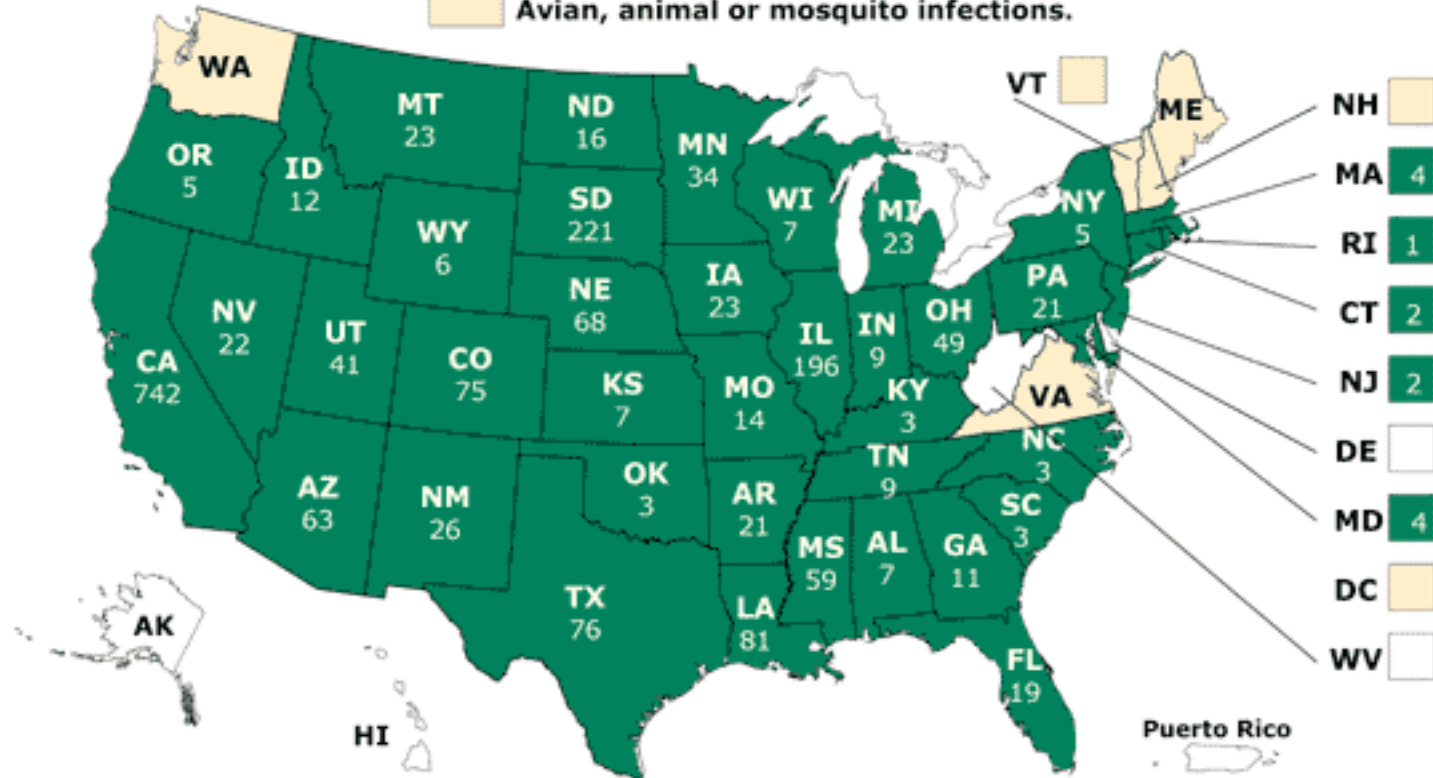
[Click on the map for a printer friendly version.](#)



**2005 West Nile Virus Activity in the United States
(Reported to CDC as of October 4, 2005)***

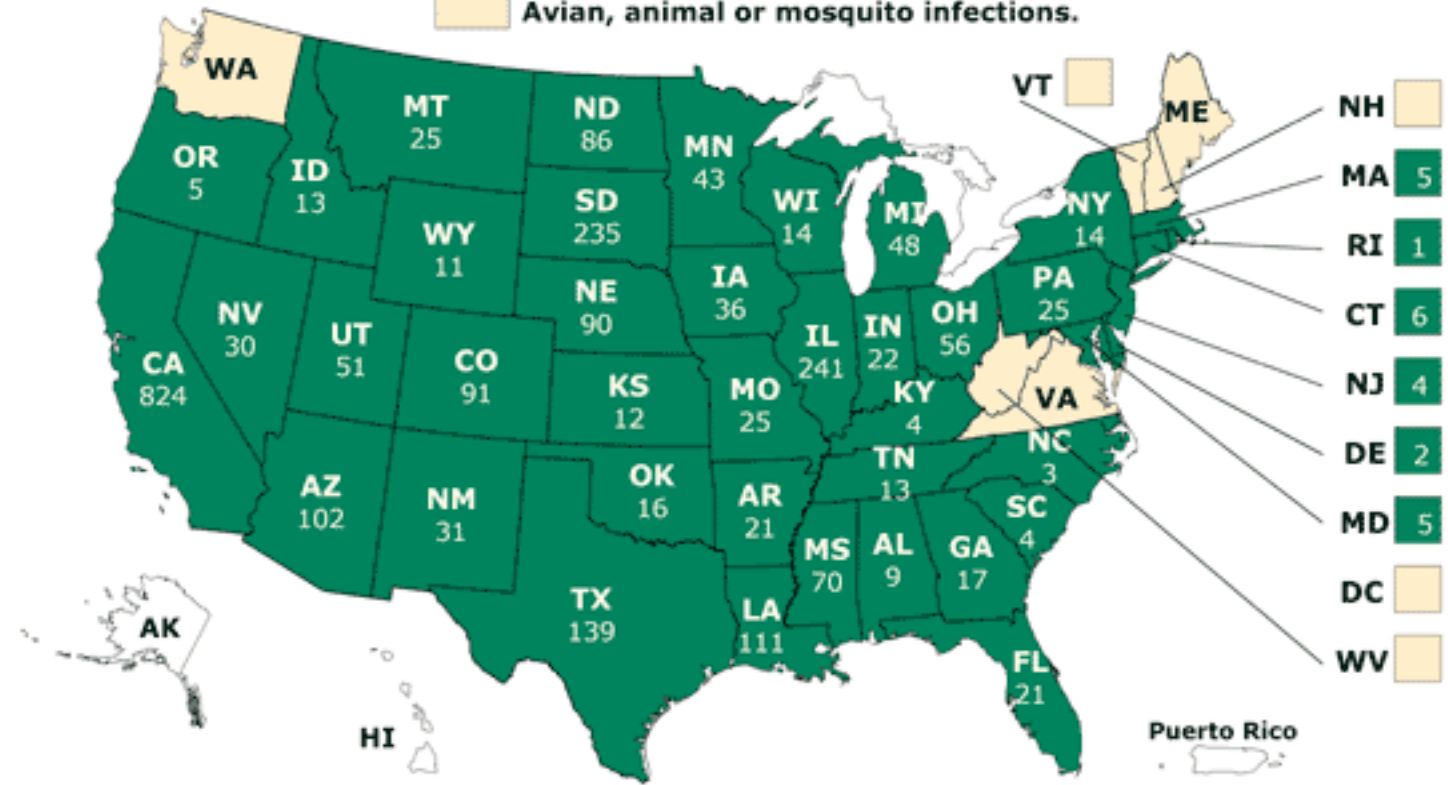


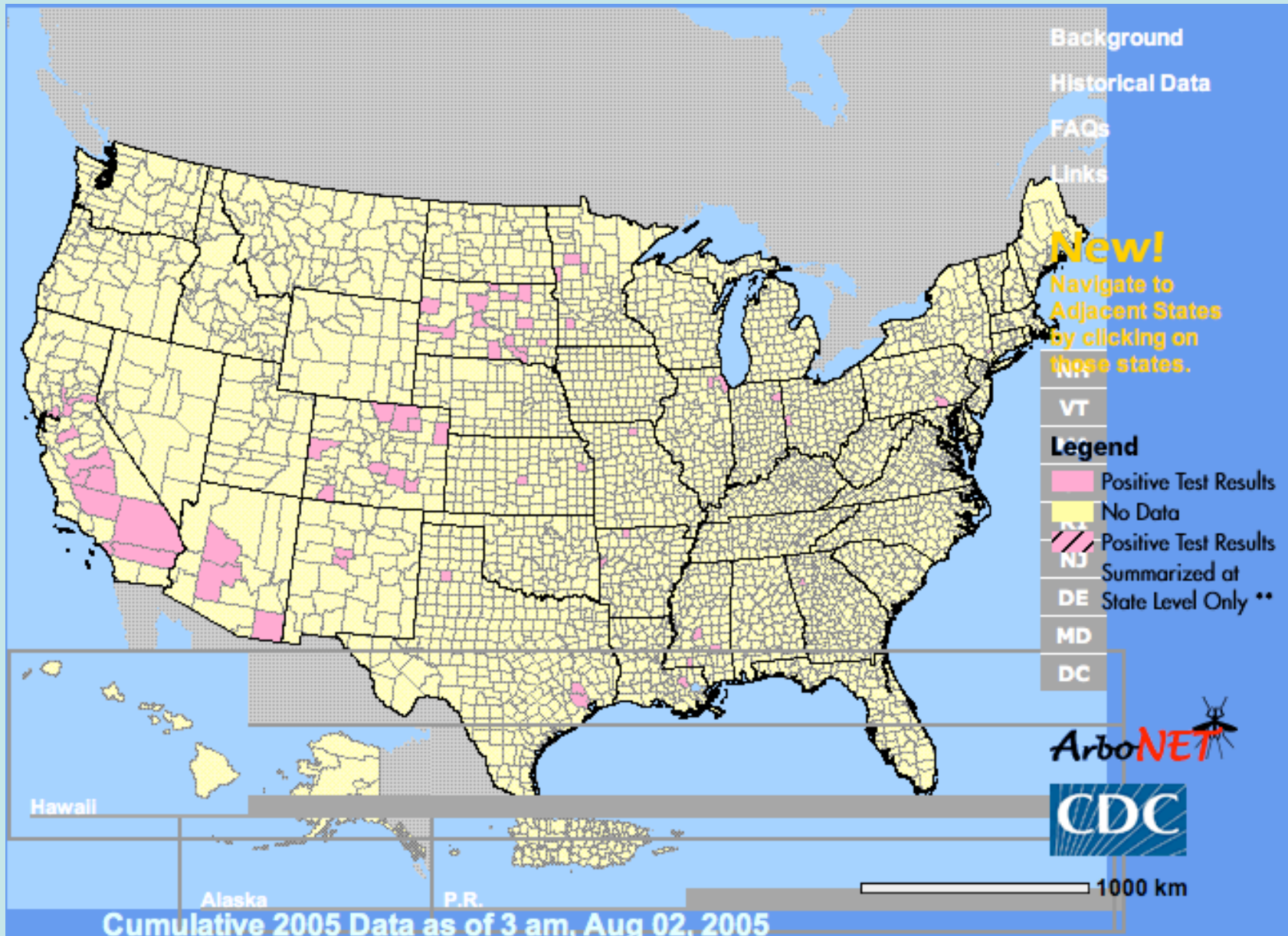
■ Indicates human disease case(s).
■ Avian, animal or mosquito infections.





Indicates human disease case(s).
Avian, animal or mosquito infections.








- Background
- Historical Data
- FAQs
- Links

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 Navigate to
 Adjacent States
 by clicking on
 those states.

VT

Legend

-  Positive Test Results
-  No Data
-  Positive Test Results Summarized at State Level Only **

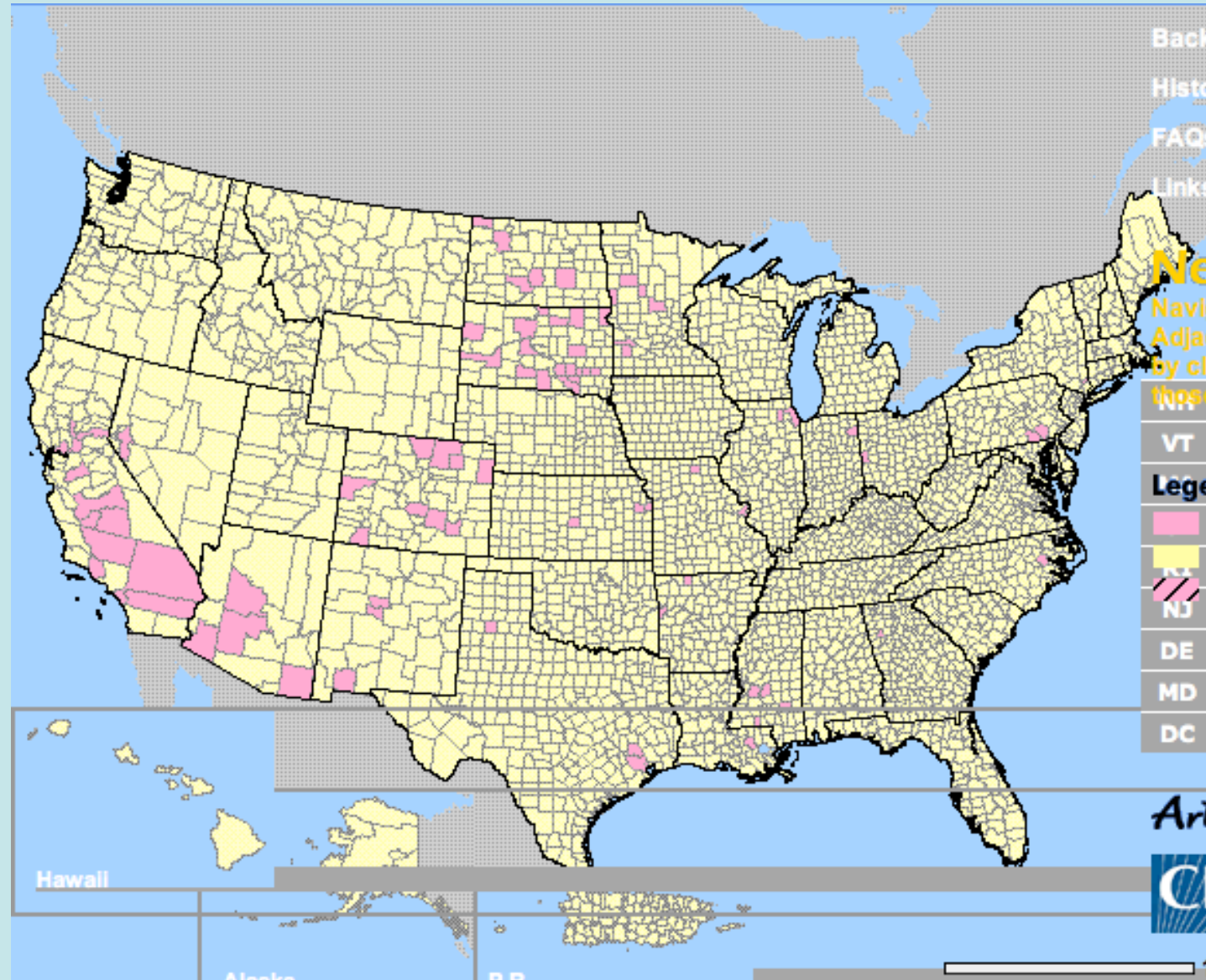
DE

MD

DC



1000 km



Cumulative 2005 Data as of 3 am, Aug 09, 2005

These data are provisional and may be revised or adjusted in the future.

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VT

Legend

 Positive Test Results

 No Data

 Positive Test Results

NJ Summarized at

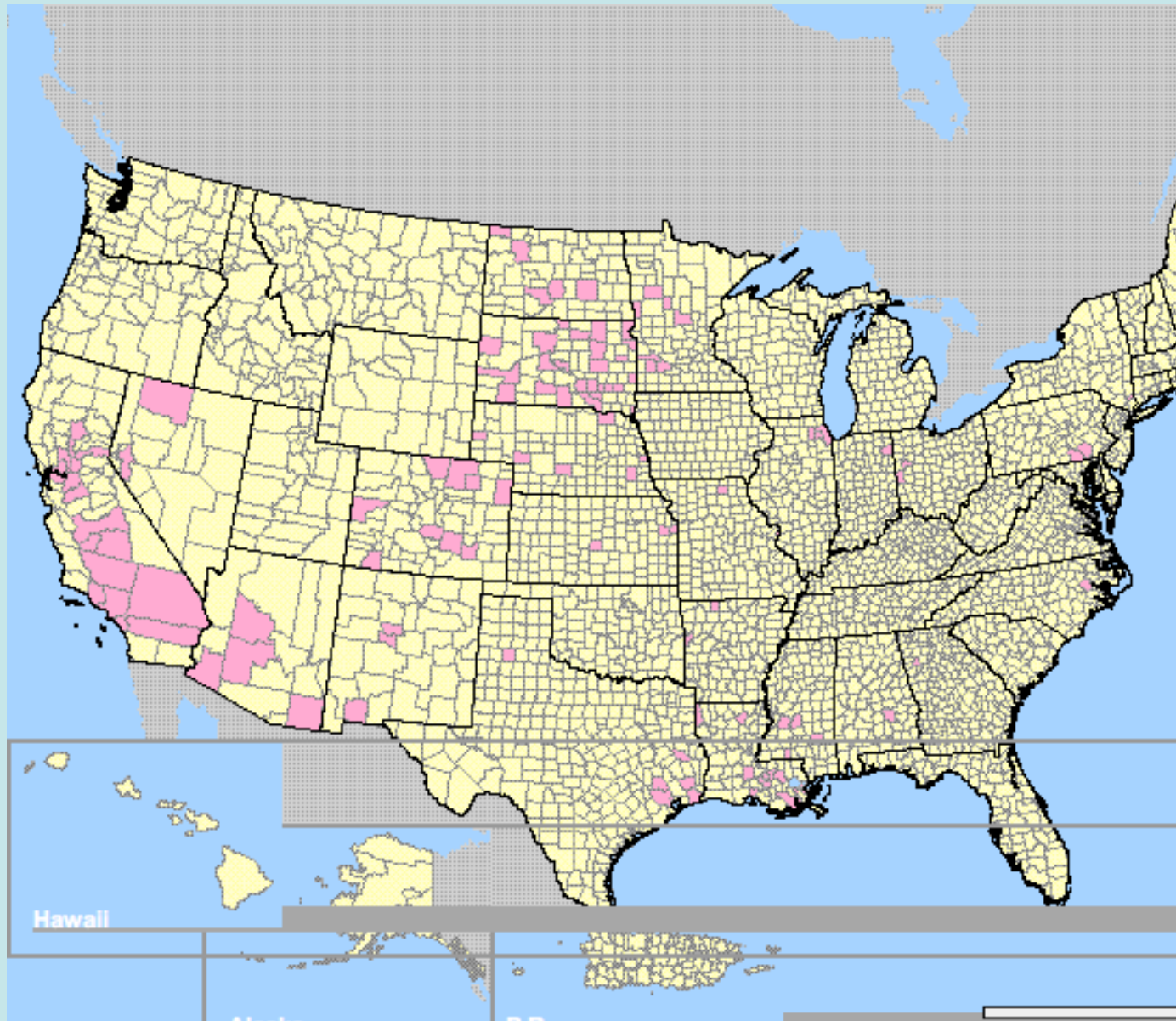
DE State Level Only **

MD

DC



1000 km



Cumulative 2005 Data as of 3 am, Aug 16, 2005

[Background](#)

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 Positive Test Results

 No Data

 Positive Test Results
Summarized at

State Level Only **

DE

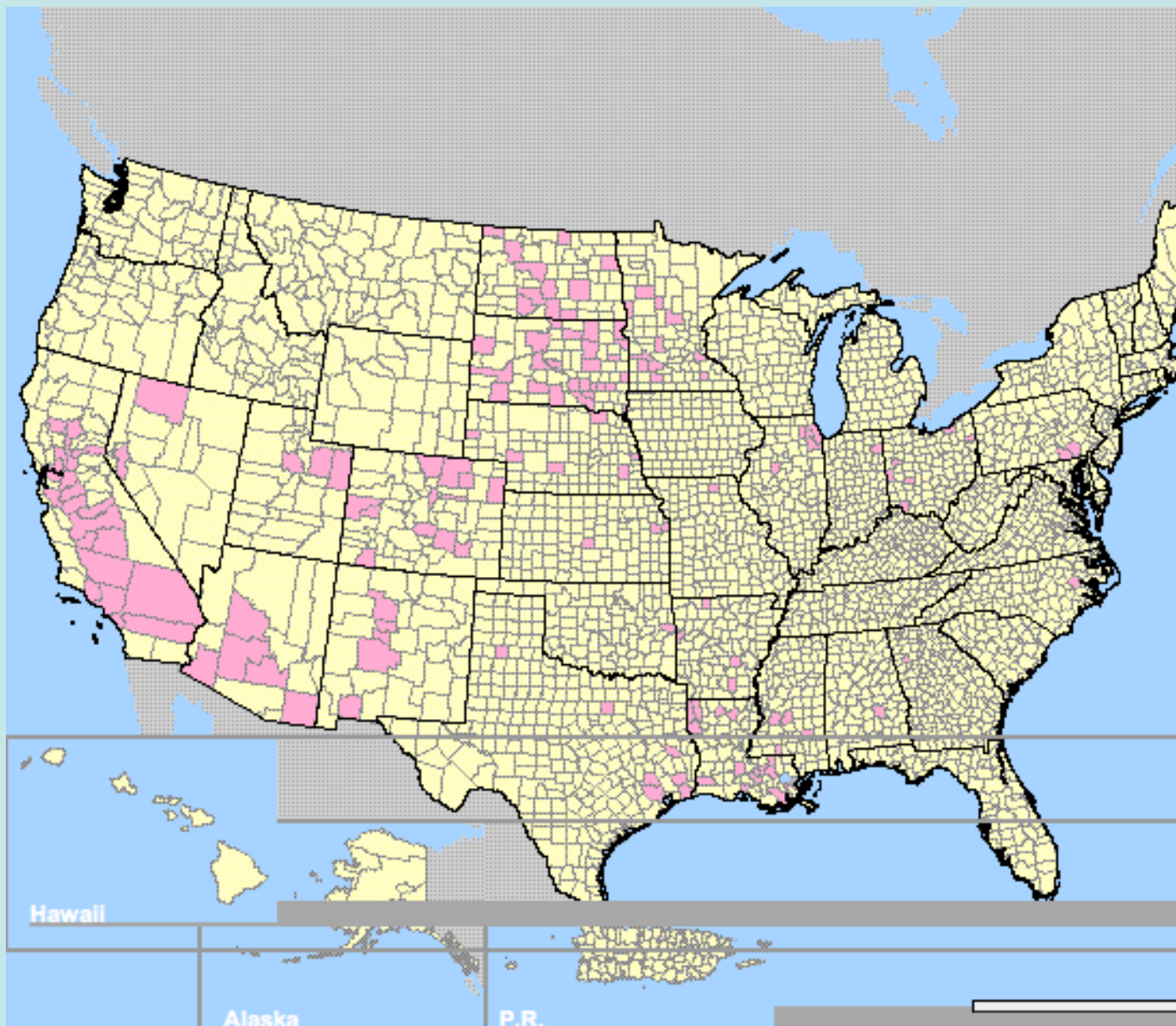
MD

DC

ArboNET 



1000 km



Cumulative 2005 Data as of 3 am, Aug 23, 2005




These data are provisional and may be revised or adjusted in the future.

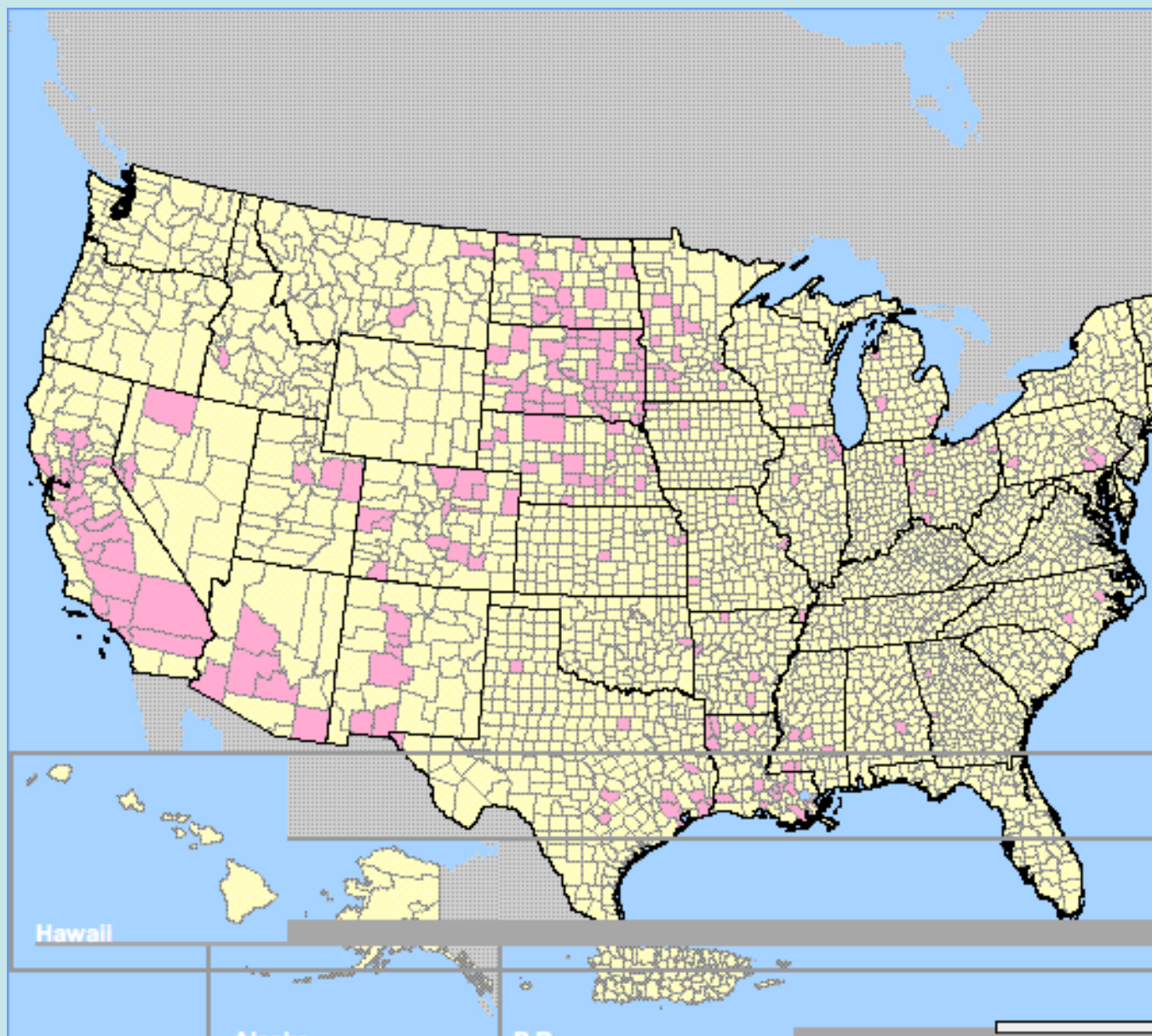
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- FAQs
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 those states.

- VT
- MD
- DC

Legend

-  Positive Test Results
-  No Data
-  Positive Test Results Summarized at State Level Only **



Cumulative 2005 Data as of 3 am, Aug 30, 2005

This data is provisional and may be revised as data is collected in the future.

Background

Historical Data

FAQs

Links

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Adjacent States
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those states.

VT

Legend

Positive Test Results

No Data

Positive Test Results

Summarized at

State Level Only **

DE

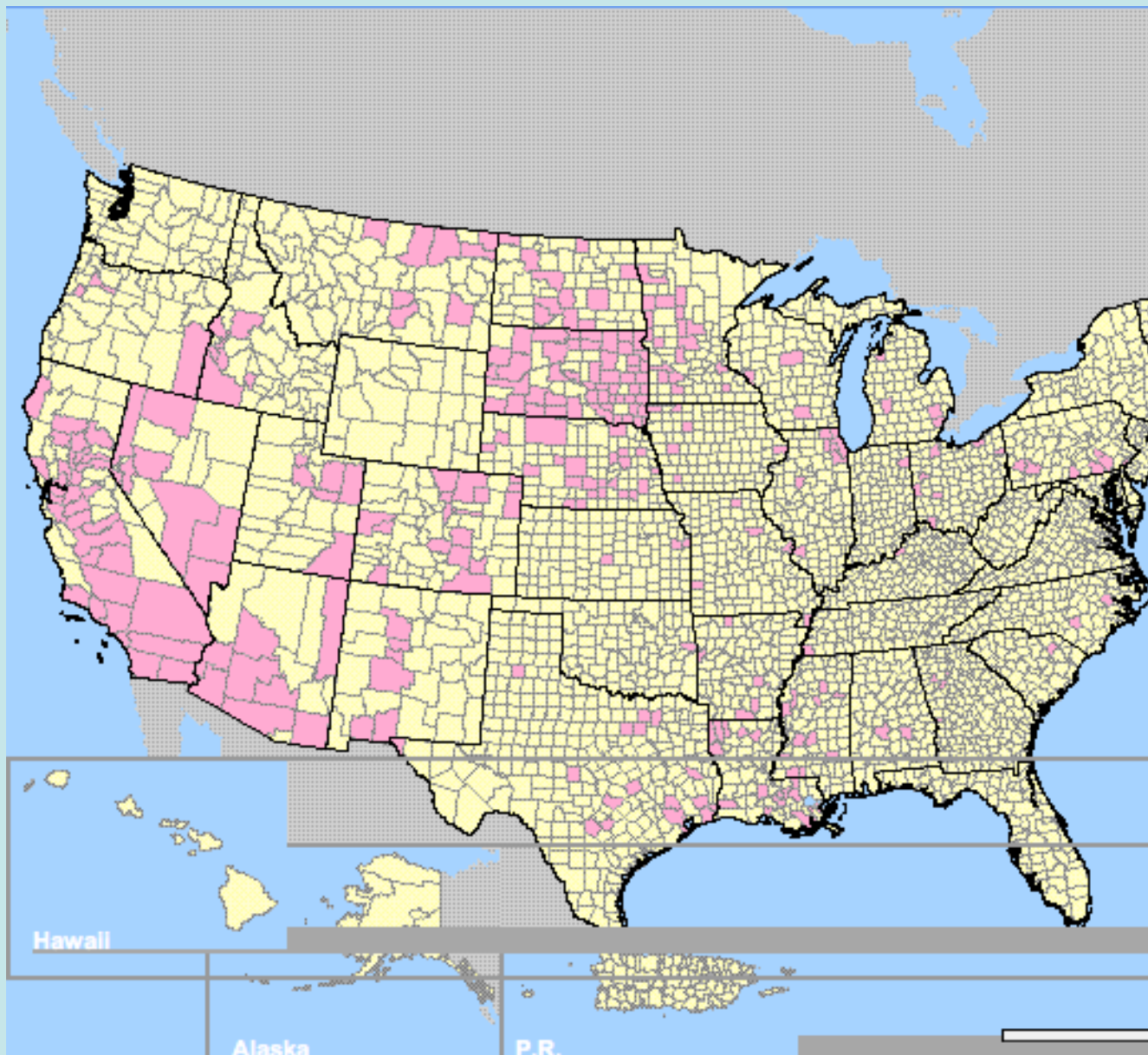
MD

DC

ArboNET 



1000 km



Hawaii

Alaska

P.R.

Cumulative 2005 Data as of 3 am, Sep 13, 2005

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[Historical Data](#)

[FAQs](#)

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VT

Legend

 Positive Test Results

 No Data

 Positive Test Results Summarized at State Level **

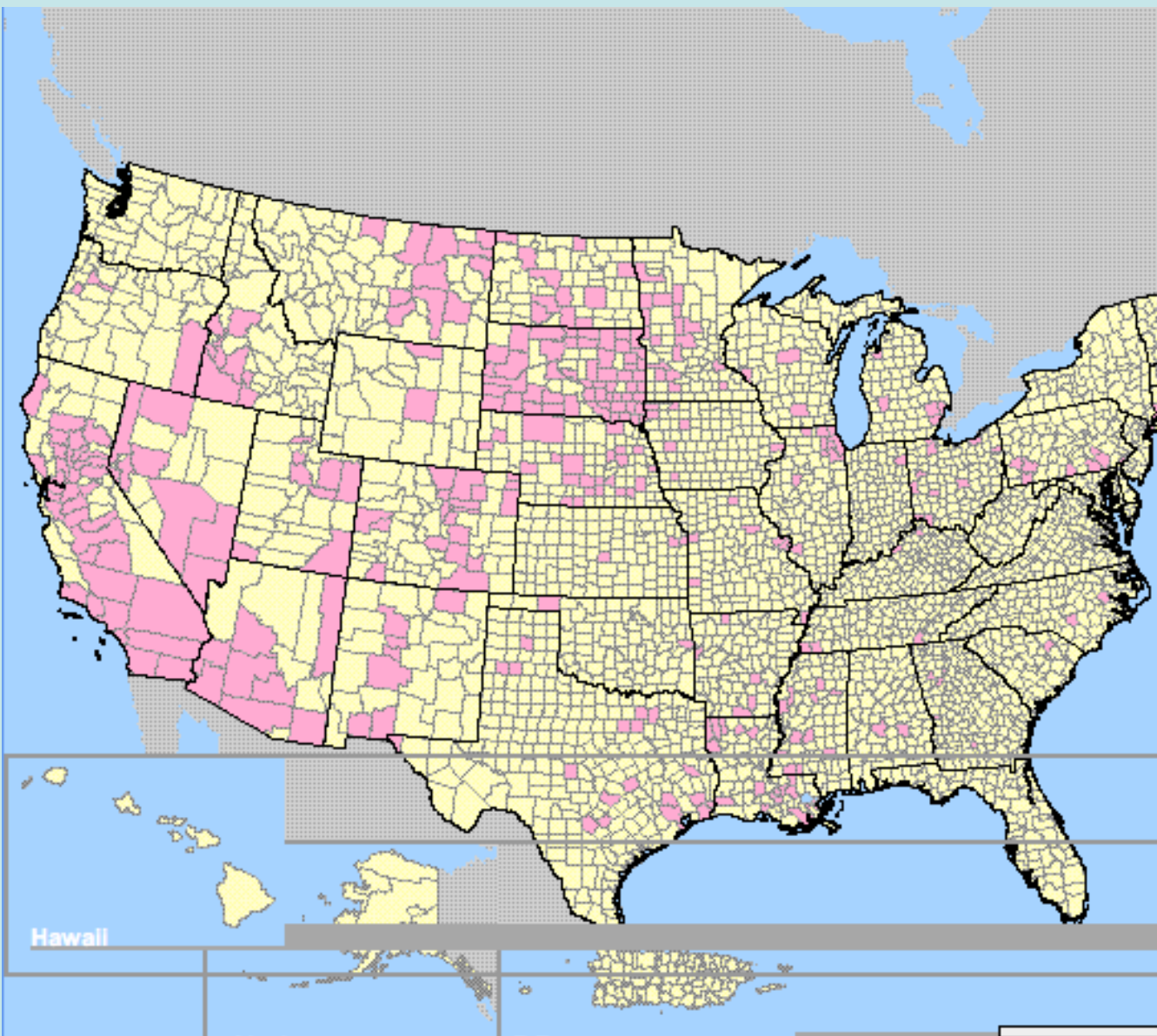
DE State Level Only **

MD

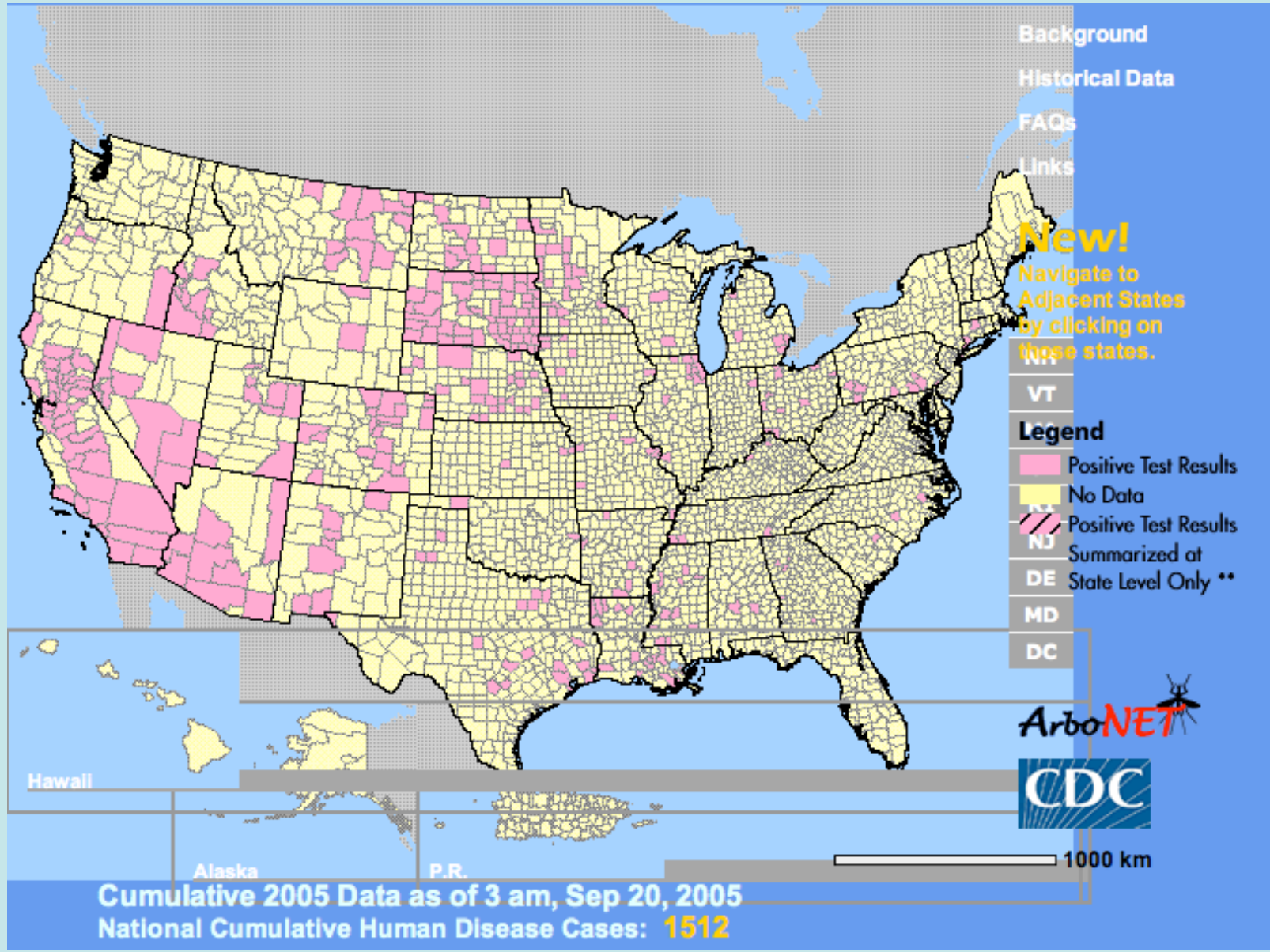
DC



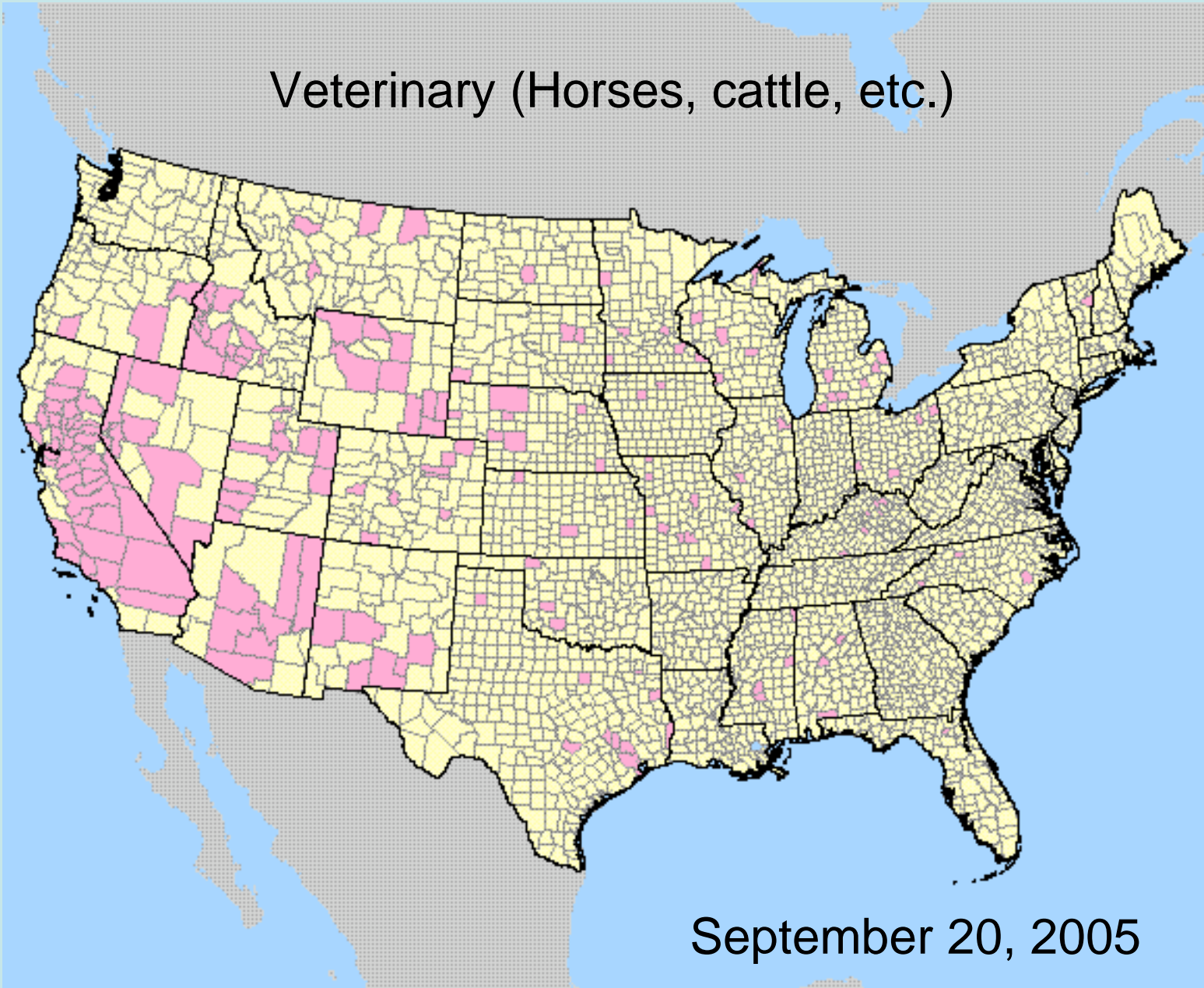
1000 km



Cumulative 2005 Data as of 3 am, Sep 20, 2005
National Cumulative Human Disease Cases: **1512**



Veterinary (Horses, cattle, etc.)



September 20, 2005

Birds

- Background
- Historical Data
- FAQs
- Links

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Navigate to Adjacent States by clicking on those states.

VT

Legend

- Positive Test Results
- Samples Submitted
- No Data

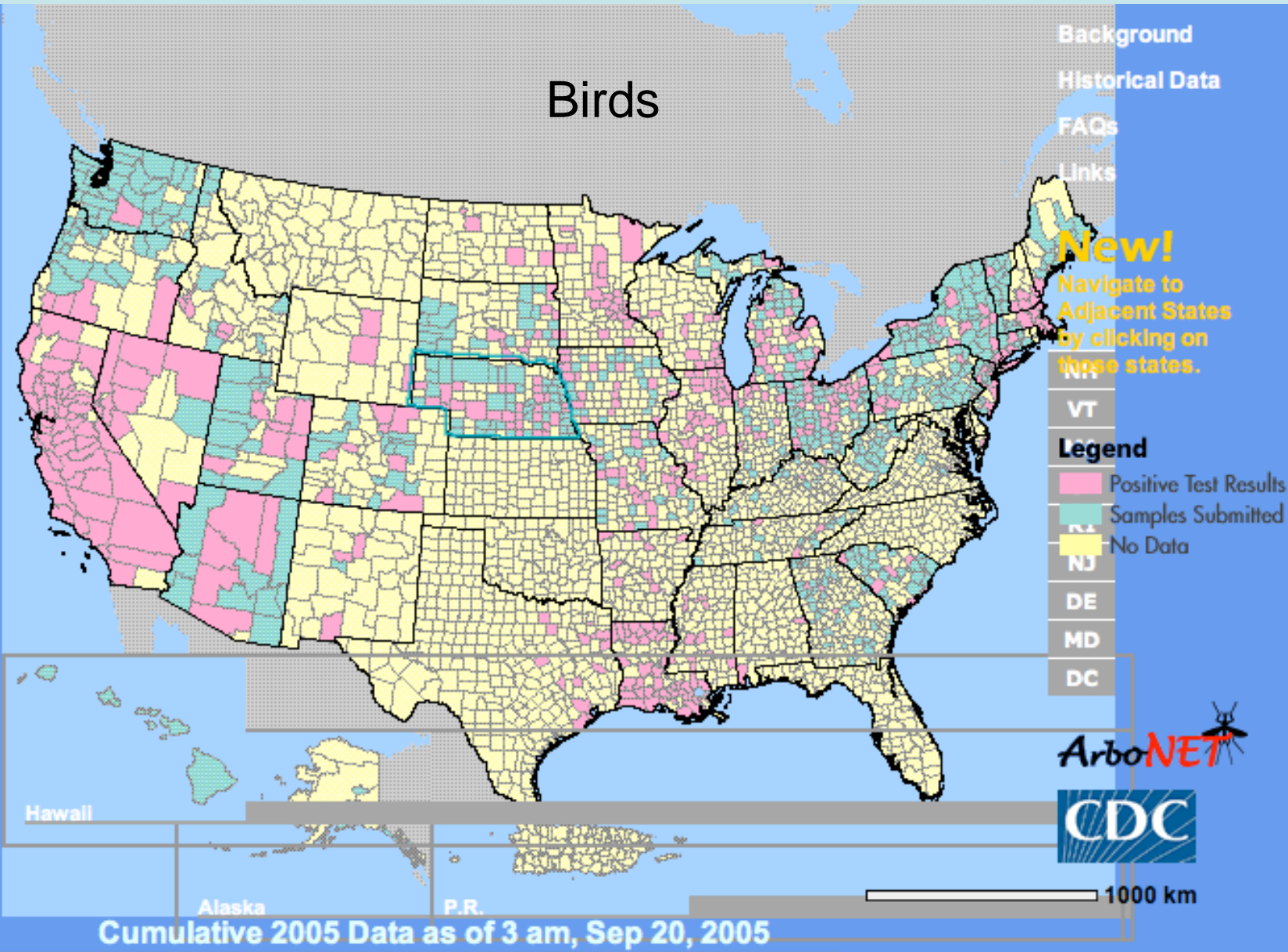
DE

MD

DC



1000 km



Cumulative 2005 Data as of 3 am, Sep 20, 2005

[Background](#)

[Historical Data](#)

[FAQs](#)

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by clicking on
those states.

VT

Legend

 Positive Test Results

 No Data

 Positive Test Results

NJ Summarized at

DE State Level Only **

MD

DC

ArboNET 



1000 km

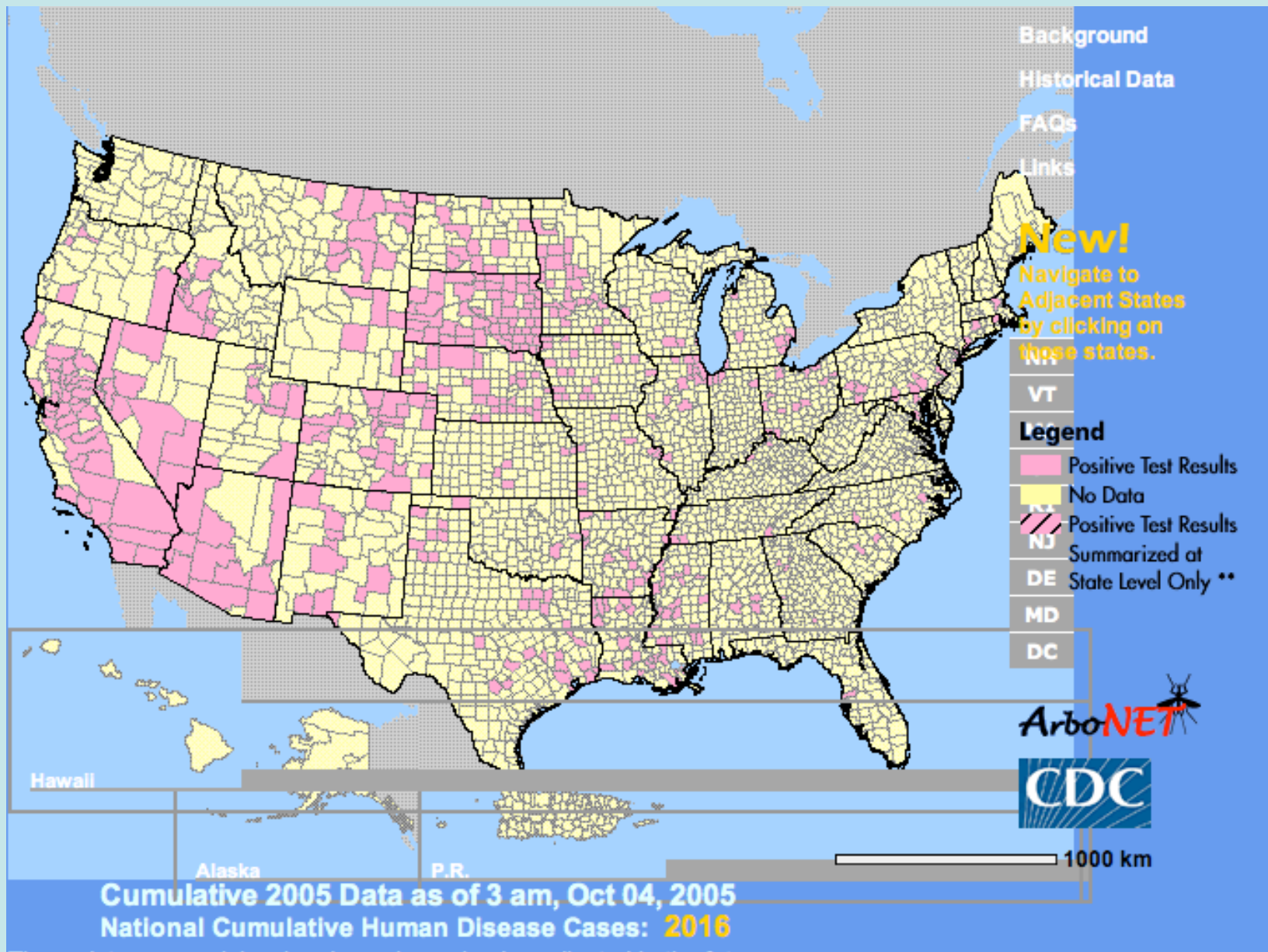
Hawaii

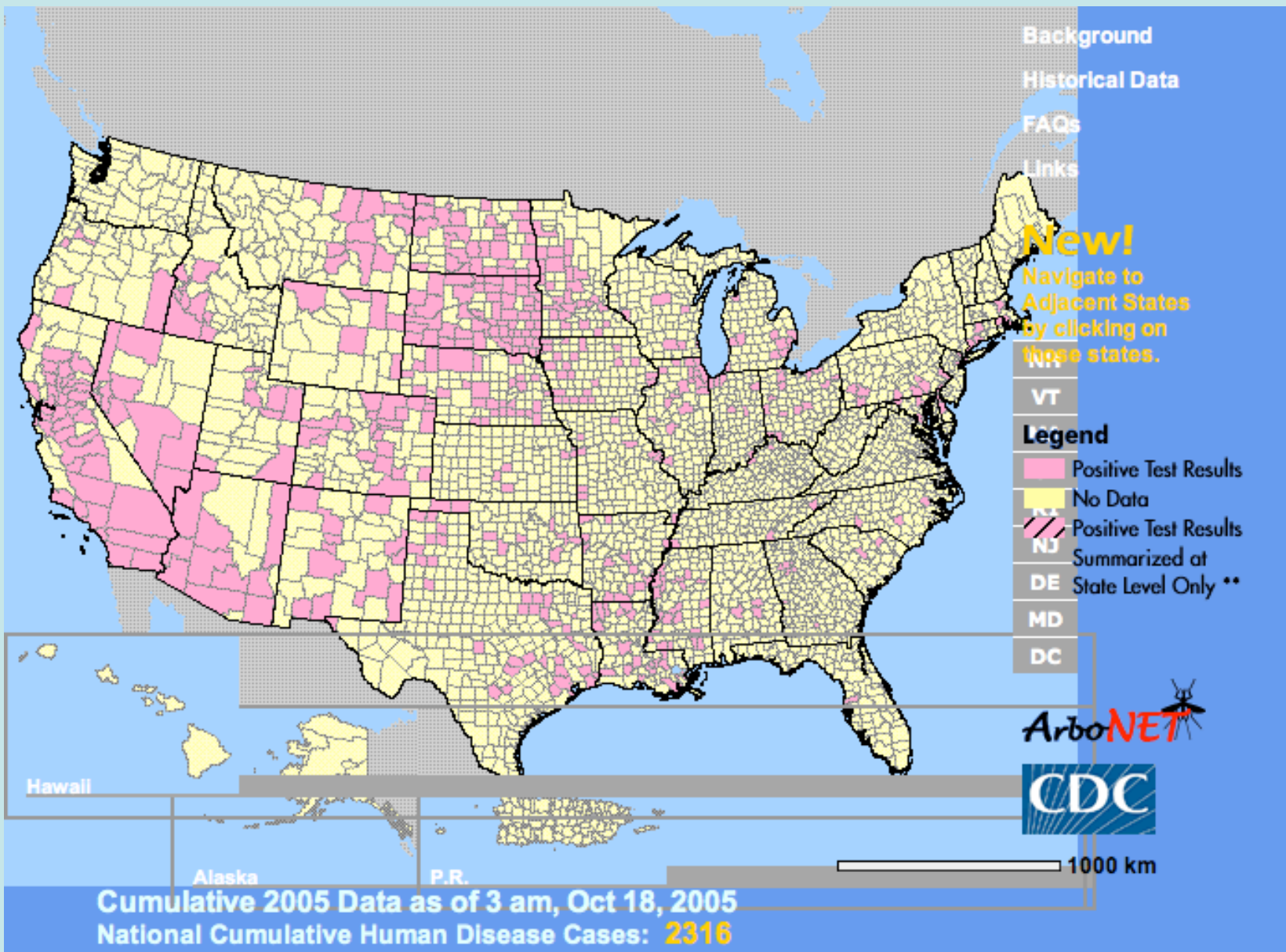
Alaska

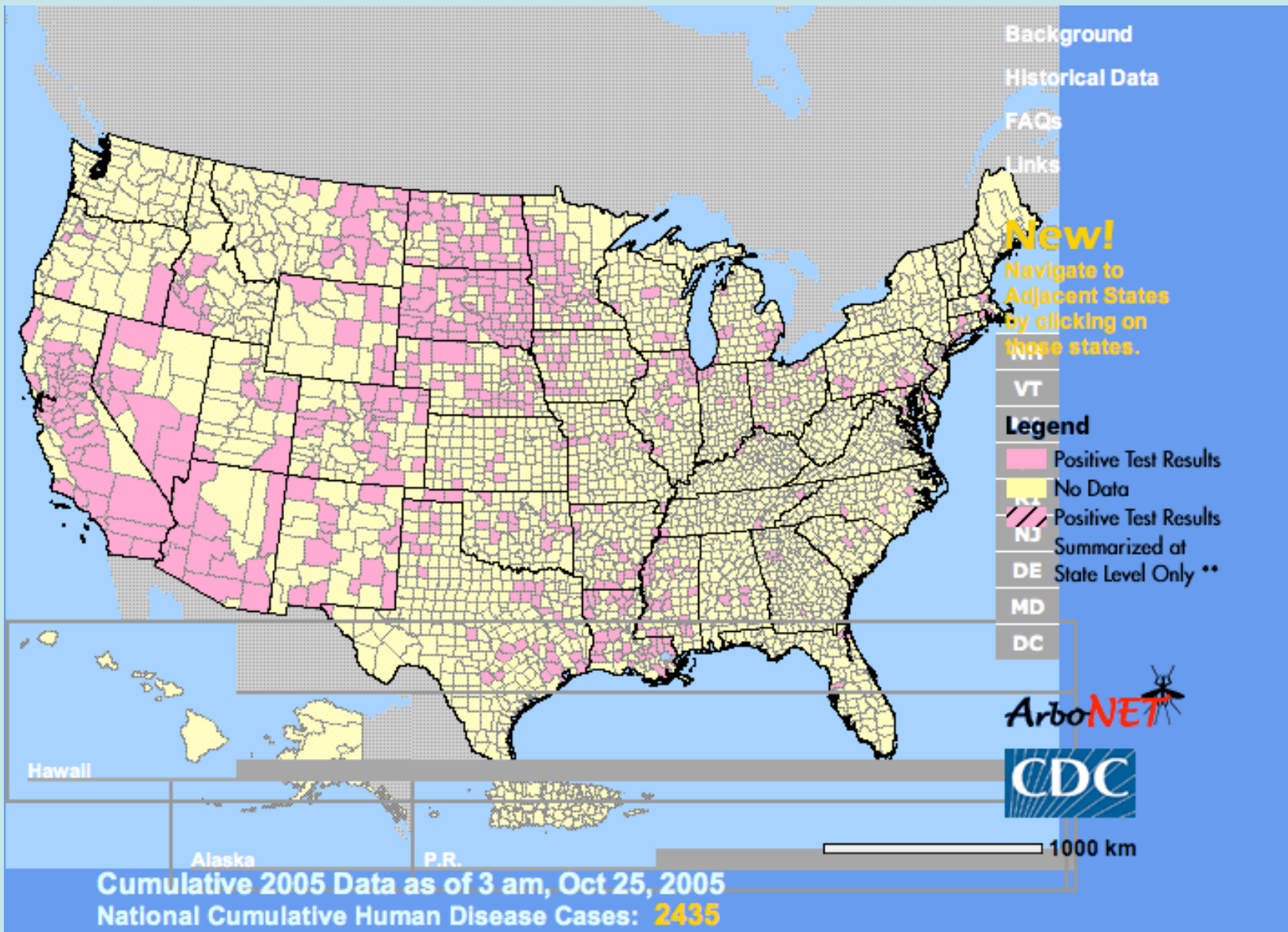
P.R.

Cumulative 2005 Data as of 3 am, Sep 27, 2005

National Cumulative Human Disease Cases: **1804**

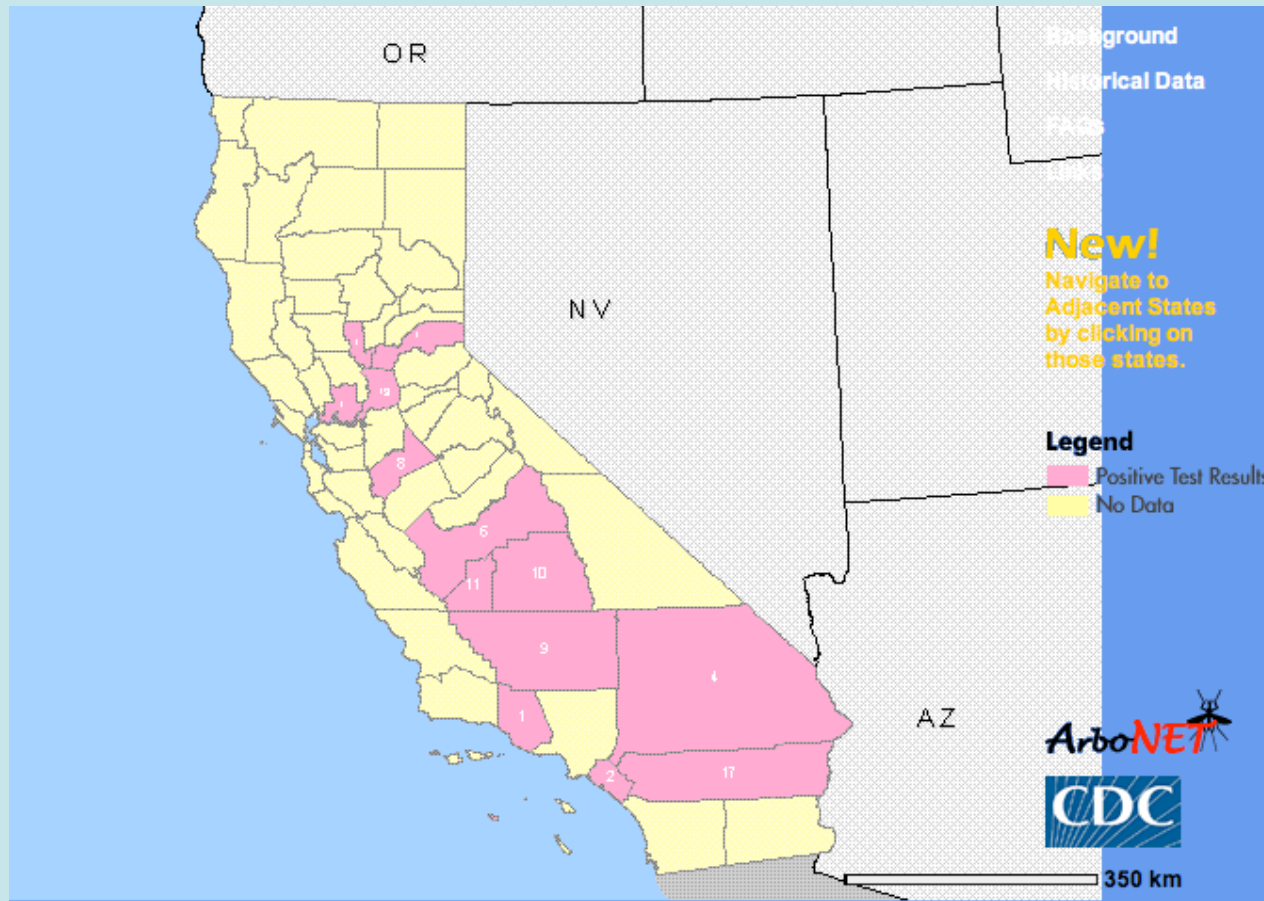






August 3, 2005

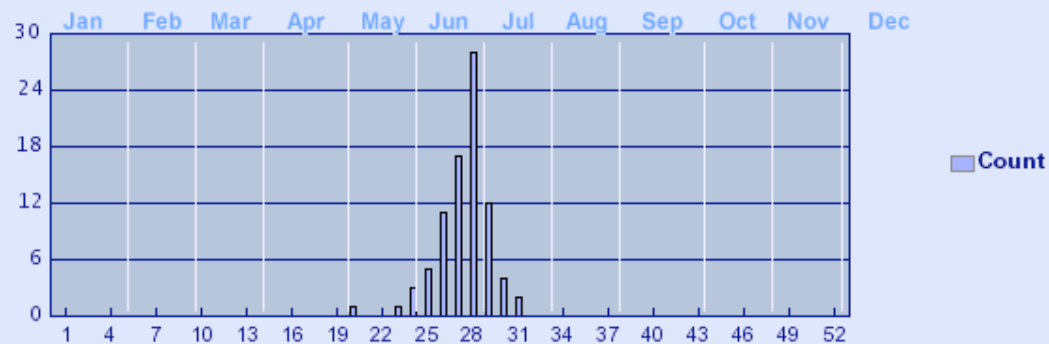




Cumulative 2005 Data as of 3 am, Aug 09, 2005

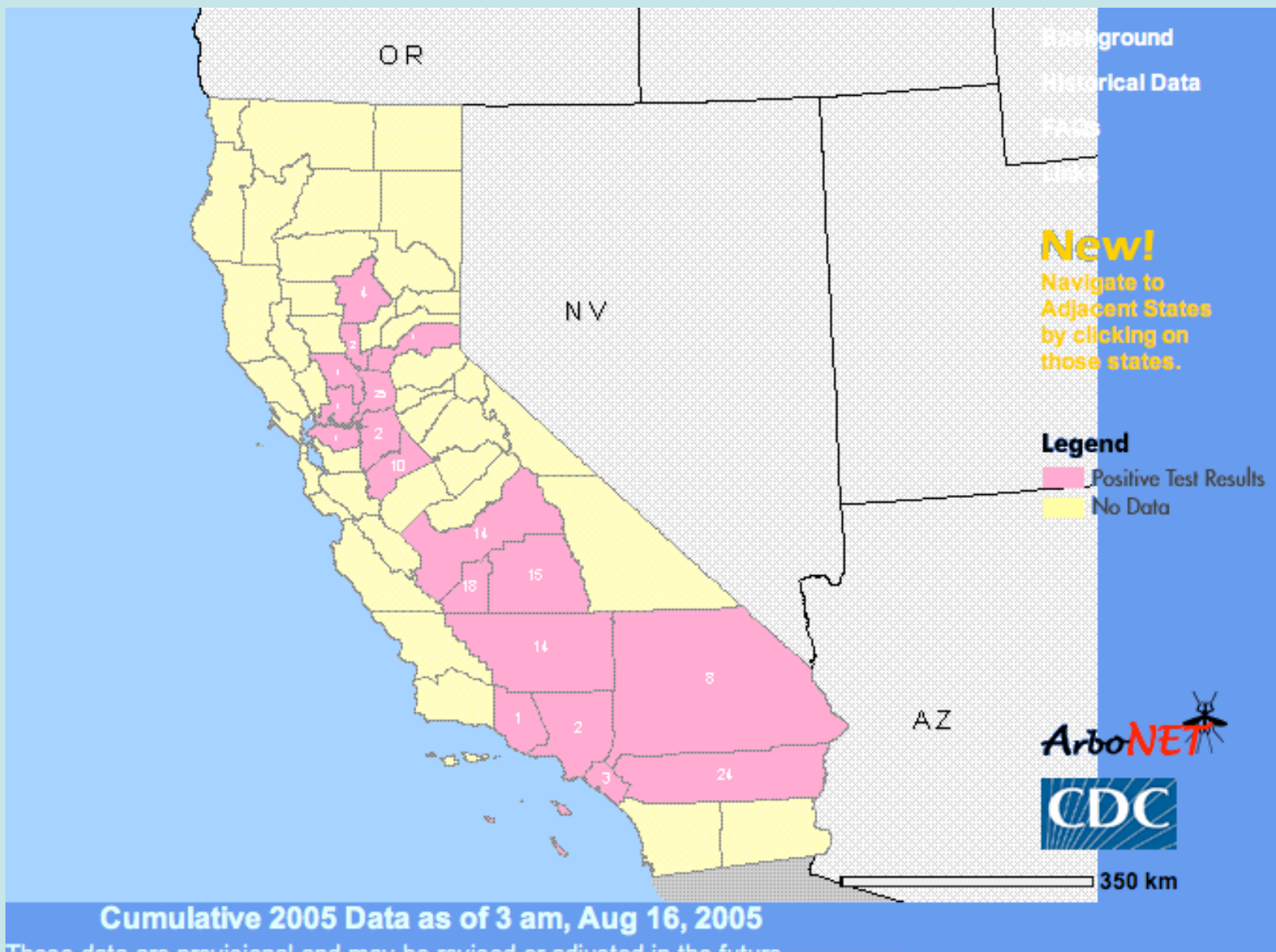
These data are provisional and may be revised or adjusted in the future.

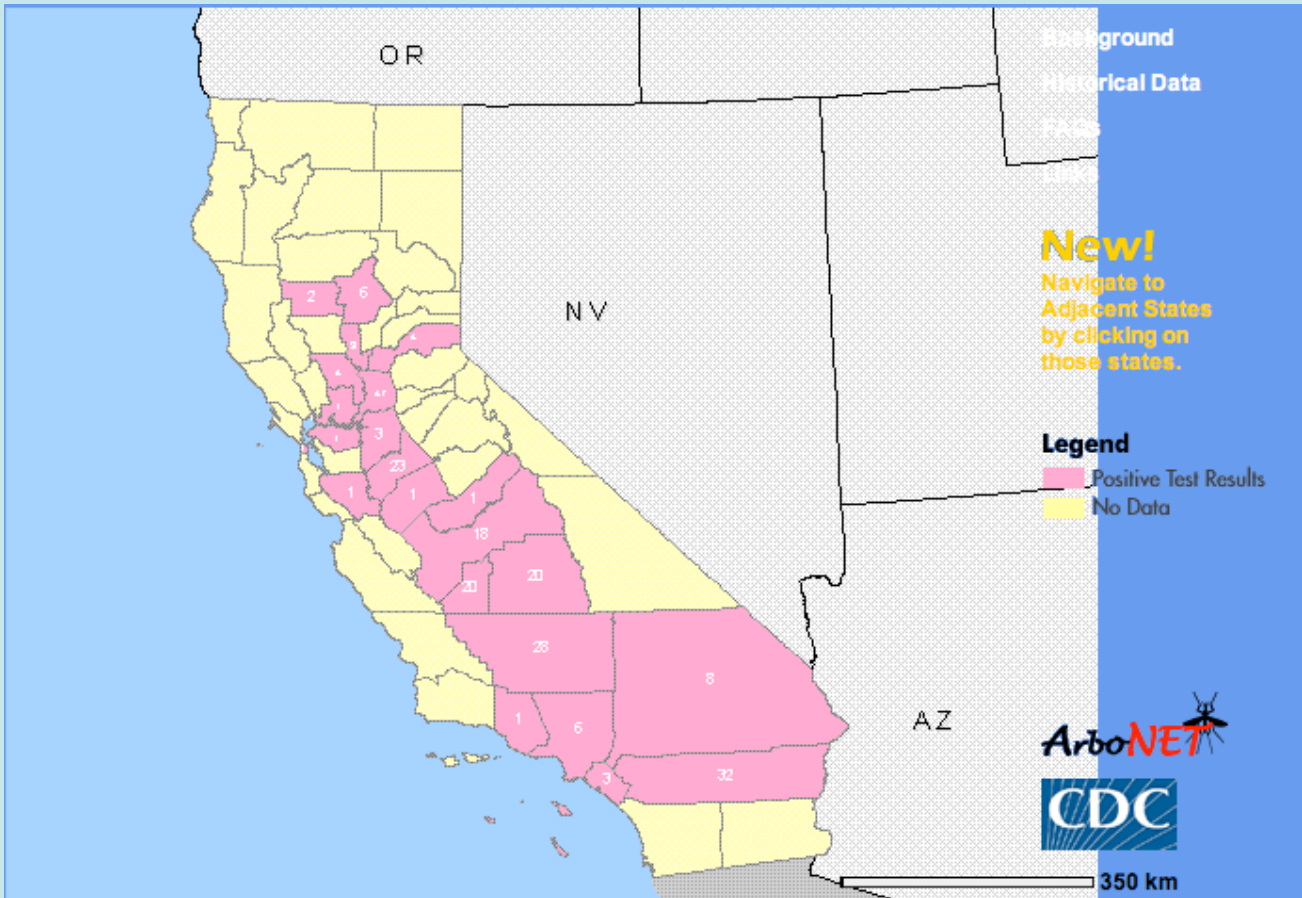
Human West Nile Virus Disease Cases by Week - California, 2005





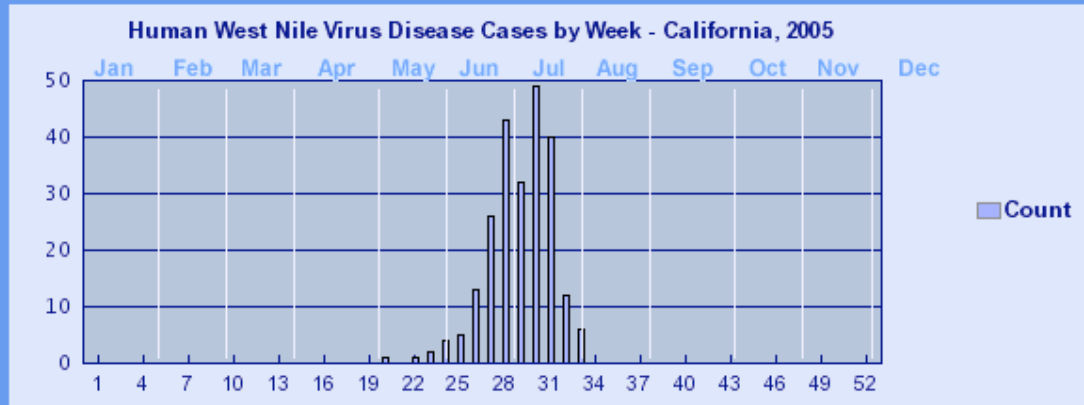
Cumulative 2004 Data as of 3 am, Aug 31, 2004

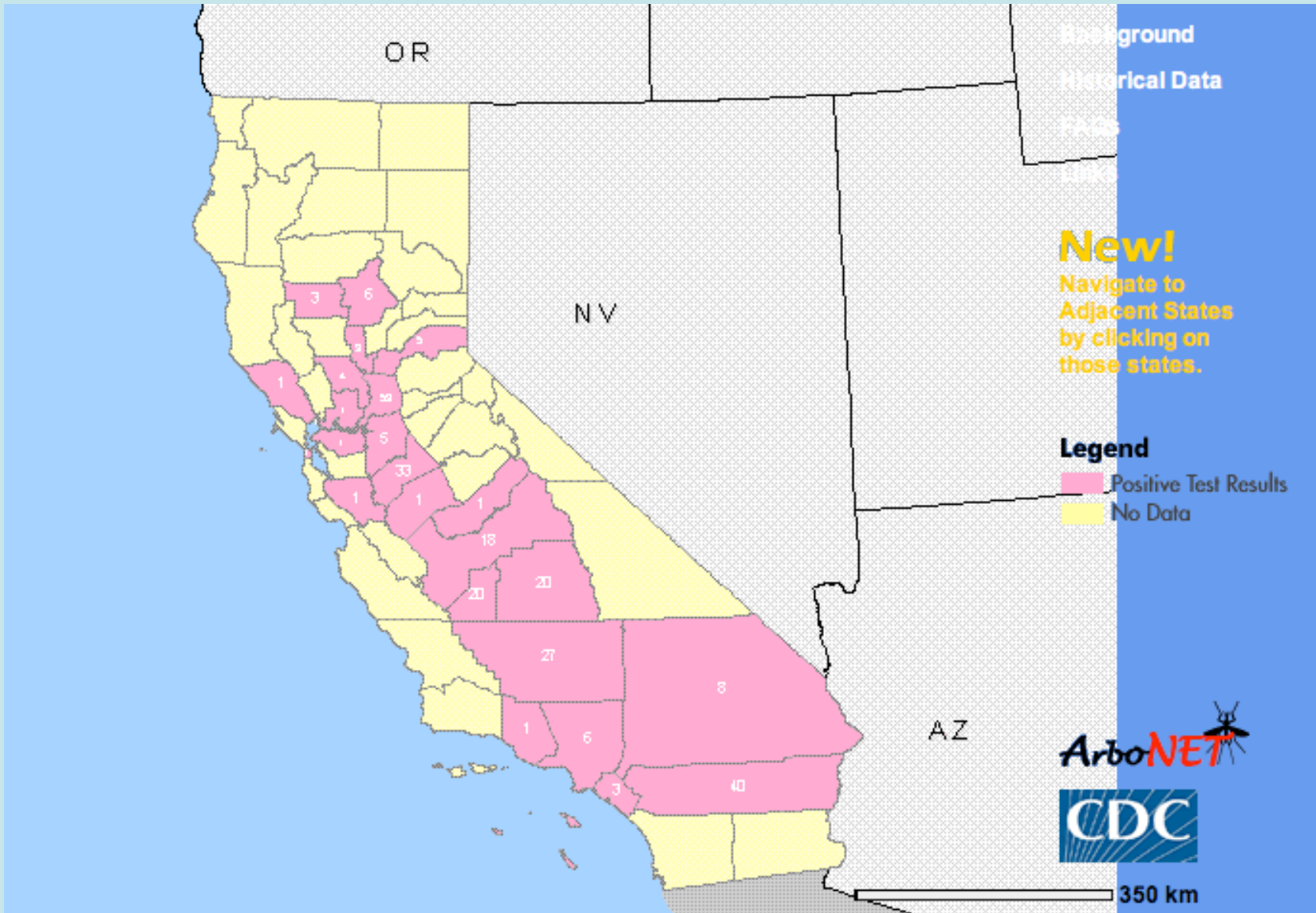




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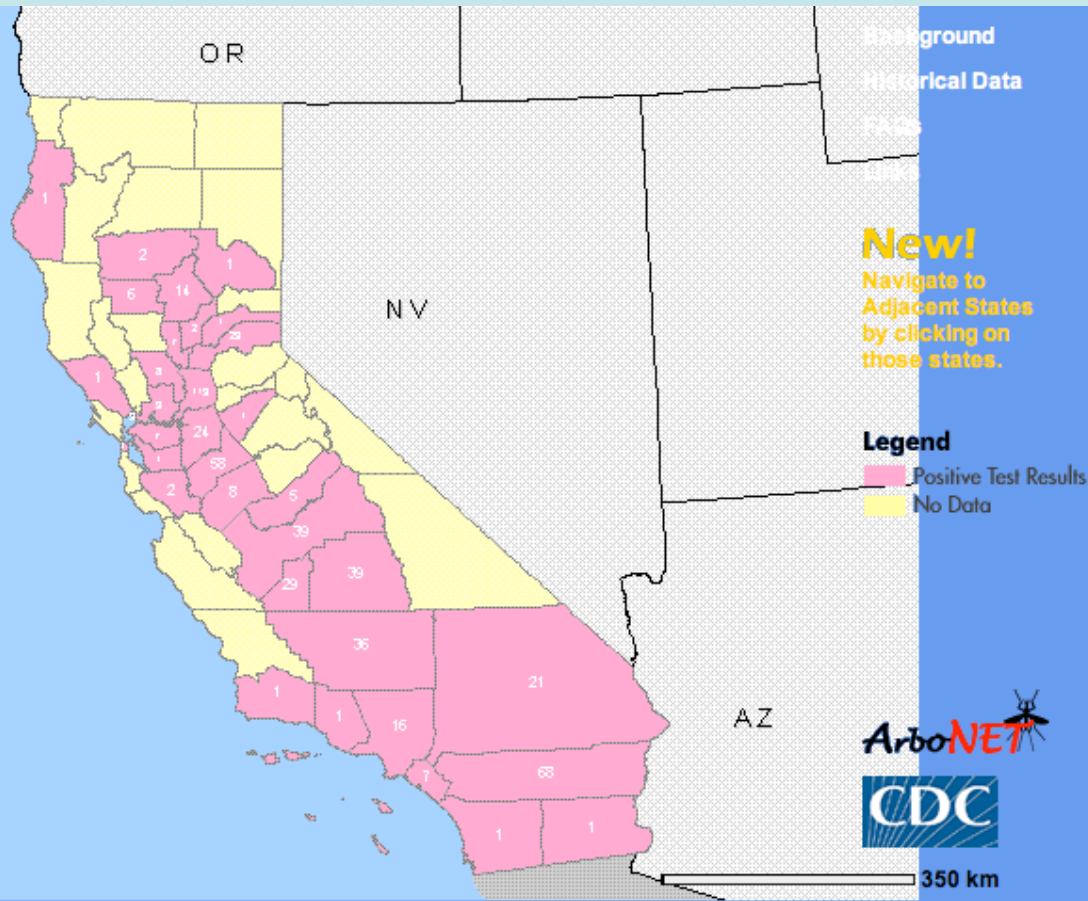
These data are provisional and may be revised or adjusted in the future.





Cumulative 2005 Data as of 3 am, Aug 30, 2005

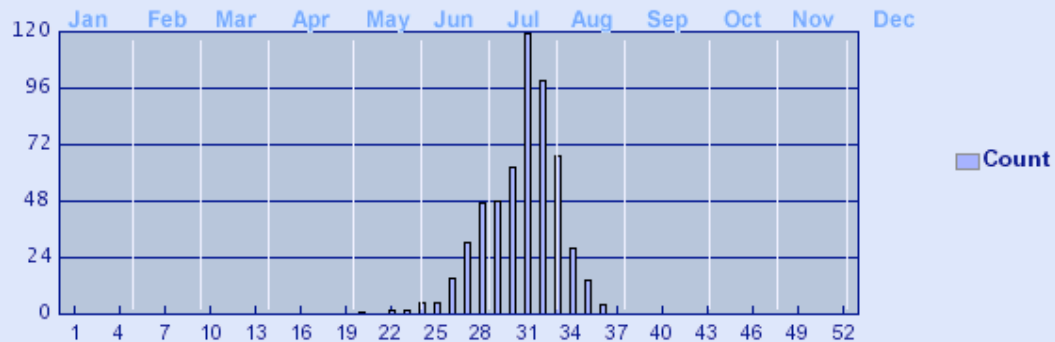


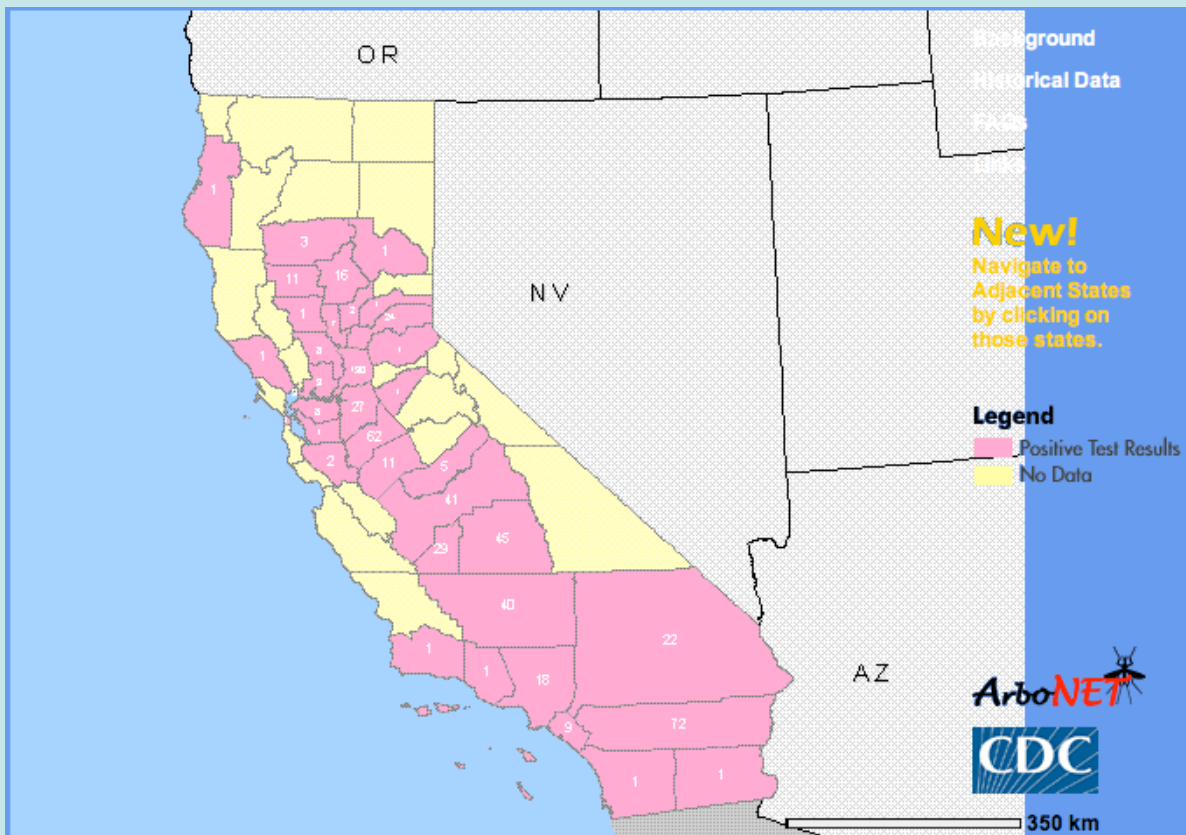


Cumulative 2005 Data as of 3 am, Sep 13, 2005

These data are provisional and may be revised or adjusted in the future.

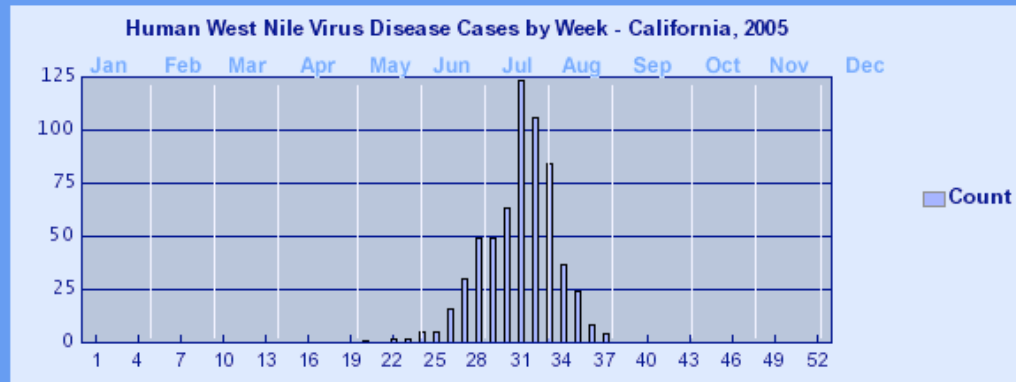
Human West Nile Virus Disease Cases by Week - California, 2005

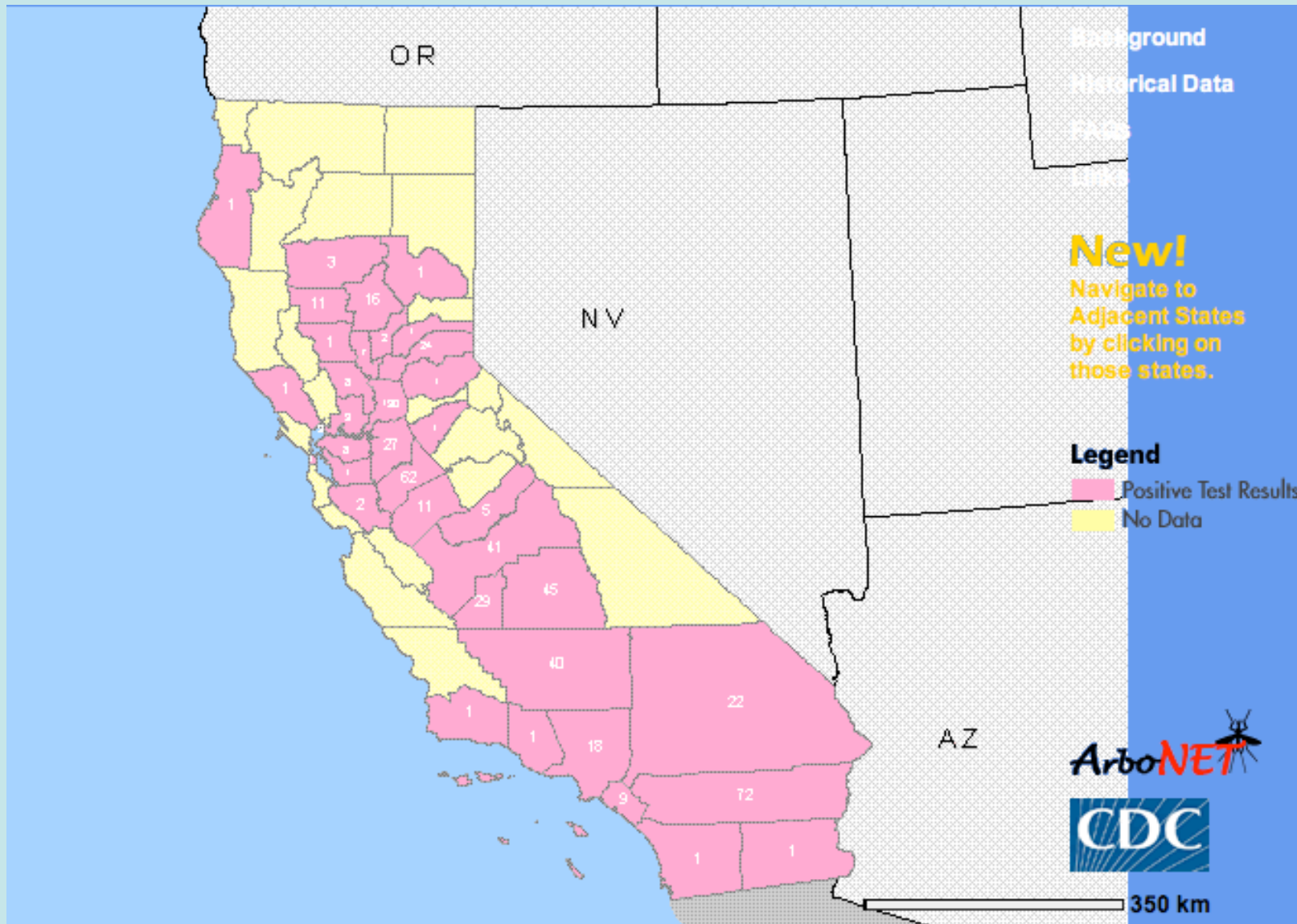




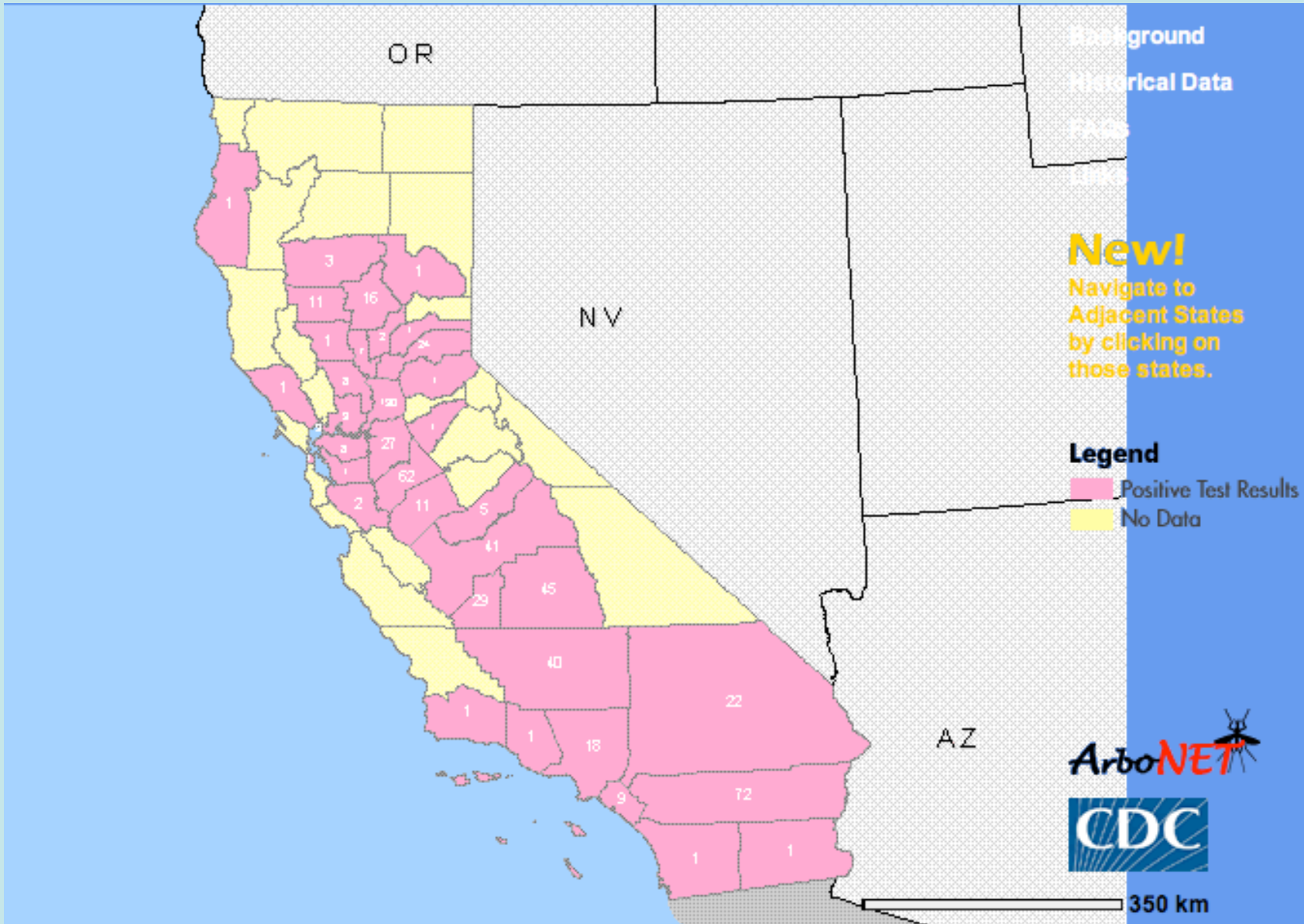
Cumulative 2005 Data as of 3 am, Sep 20, 2005

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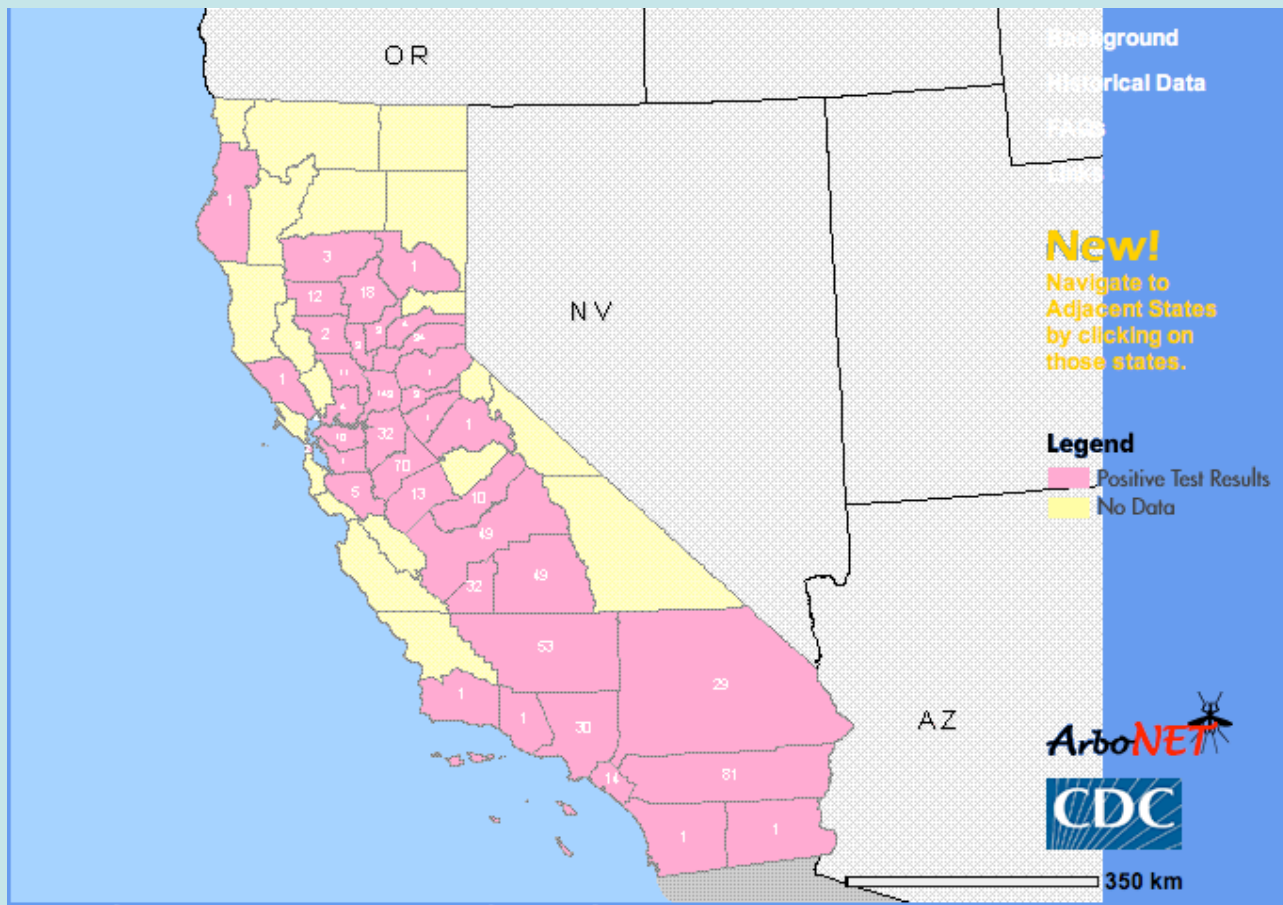
Cumulative 2005 Data as of 3 am, Sep 20, 2005



Cumulative 2005 Data as of 3 am, Sep 20, 2005

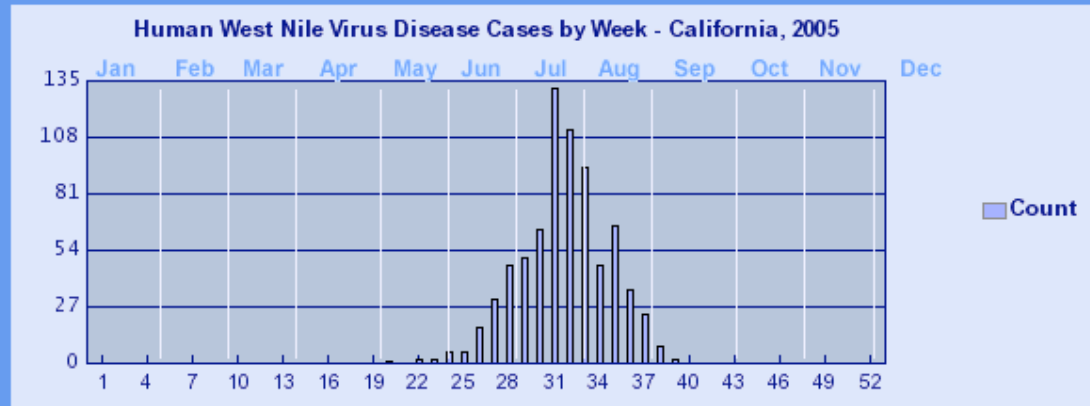


350 km

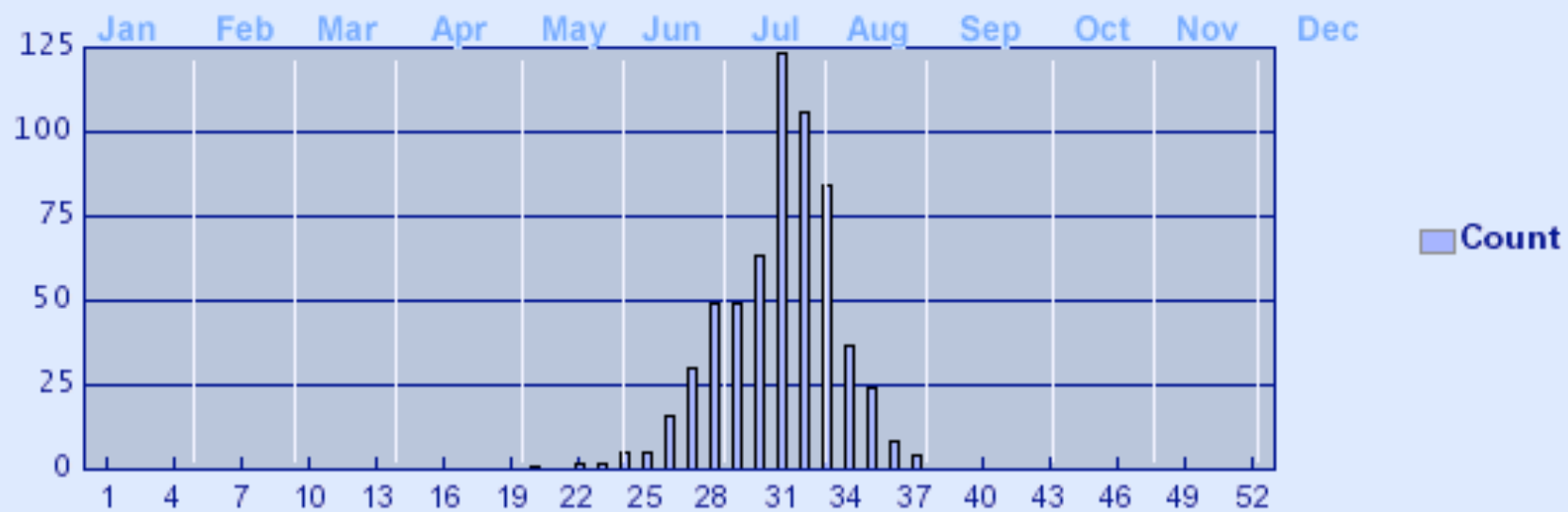


Cumulative 2005 Data as of 3 am, Oct 04, 2005

These data are provisional and may be revised or adjusted in the future.



Human West Nile Virus Disease Cases by Week - California, 2005



California:

Date: Cases

July 26 17

August 2 45

August 9 84

August 16 146

August 23 234

August 30 268

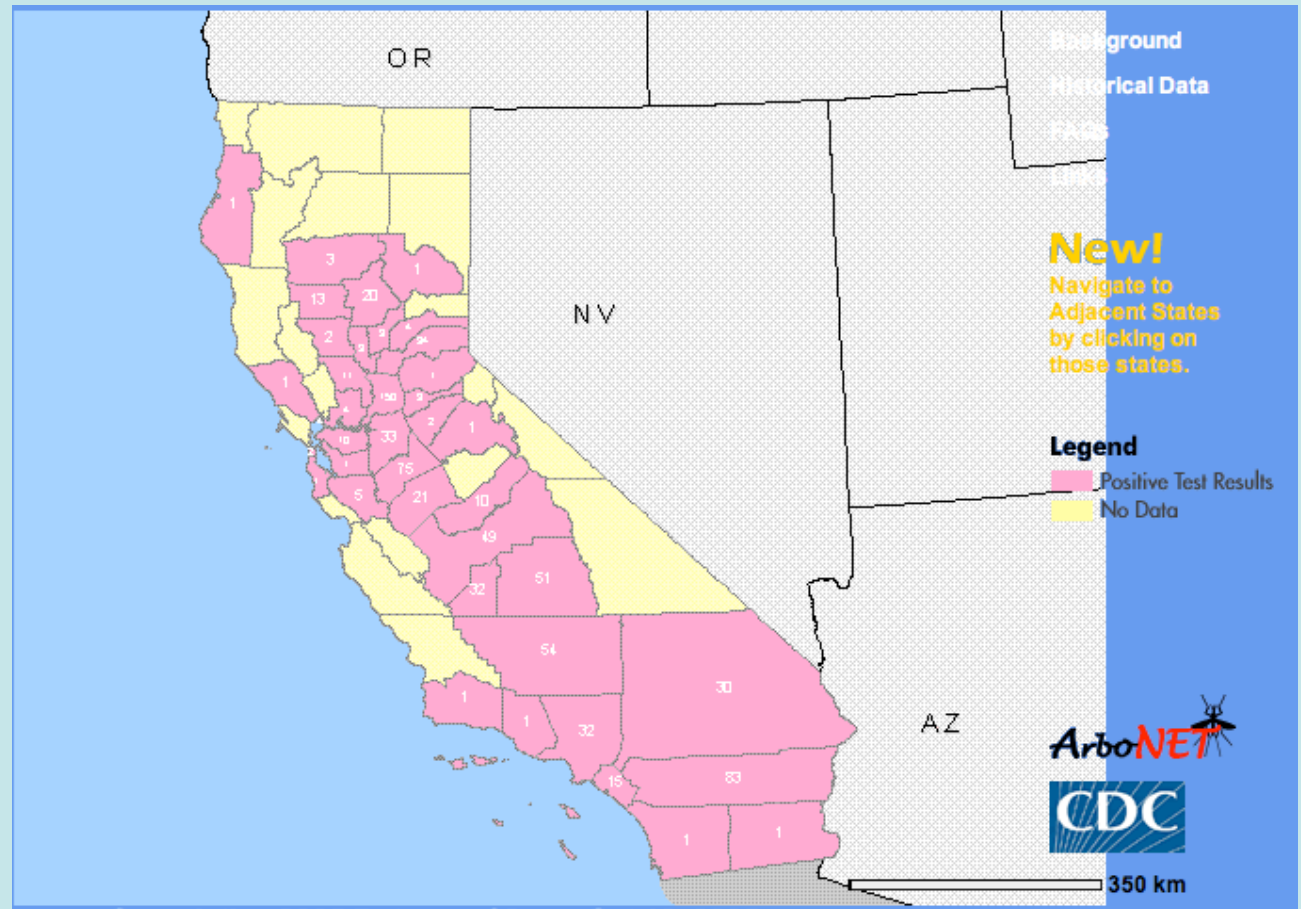
Sept 13 548

Sept 20 608

Sept 27 681

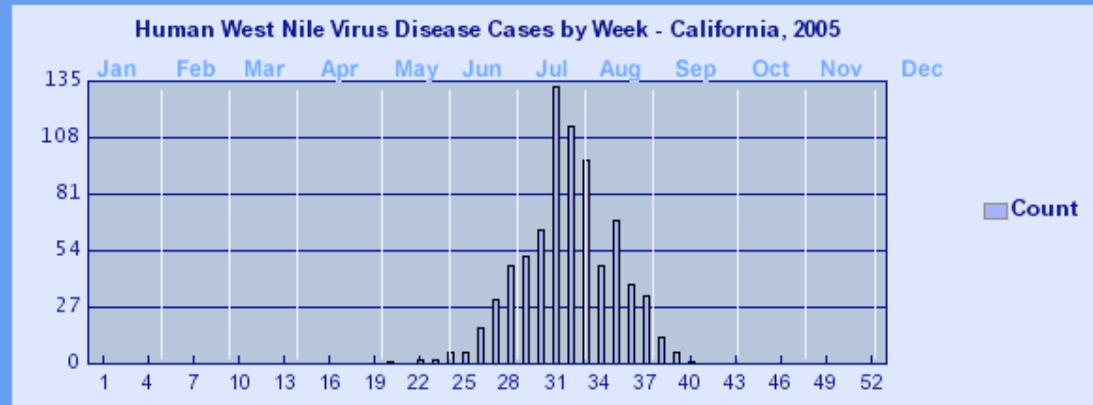
Oct 4 742

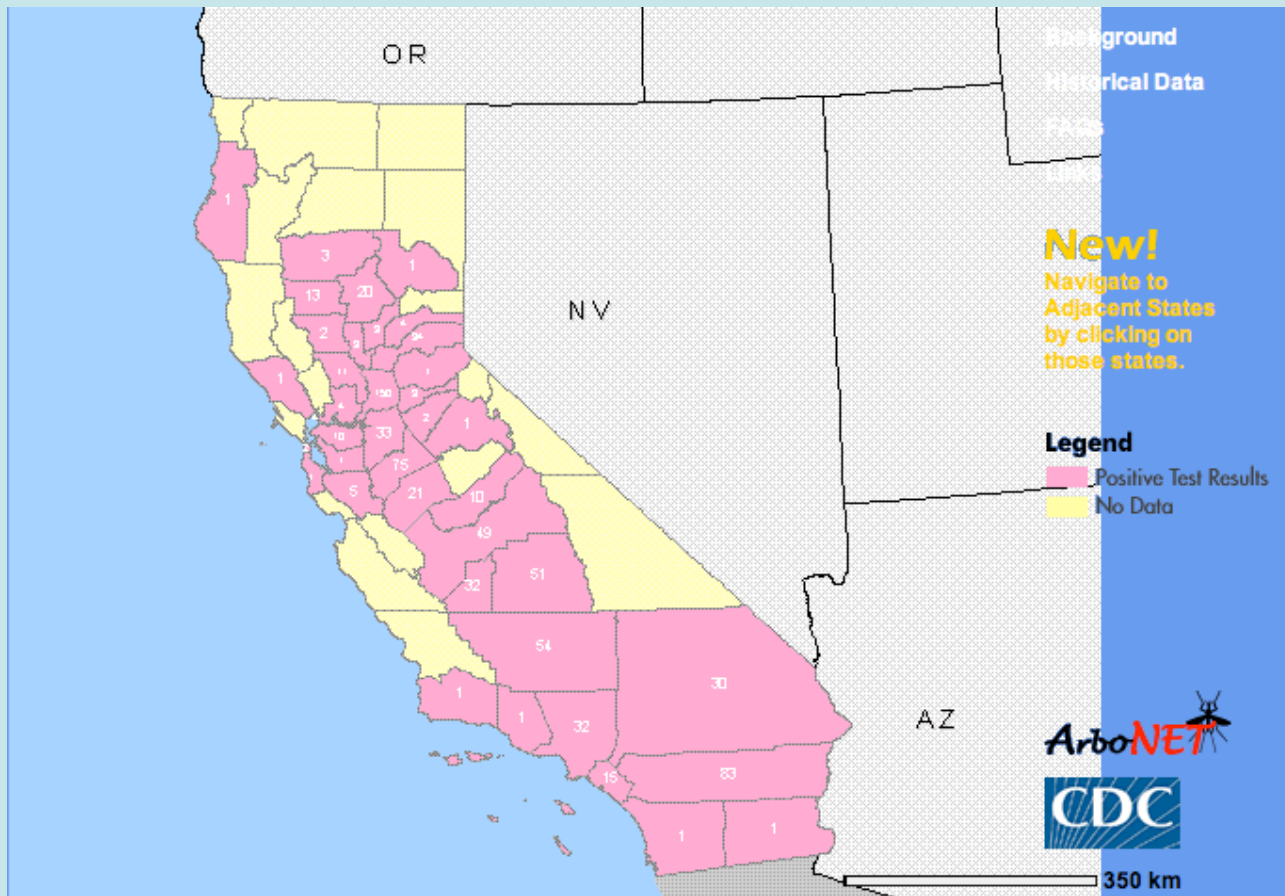
Oct 18 771



Cumulative 2005 Data as of 3 am, Oct 18, 2005

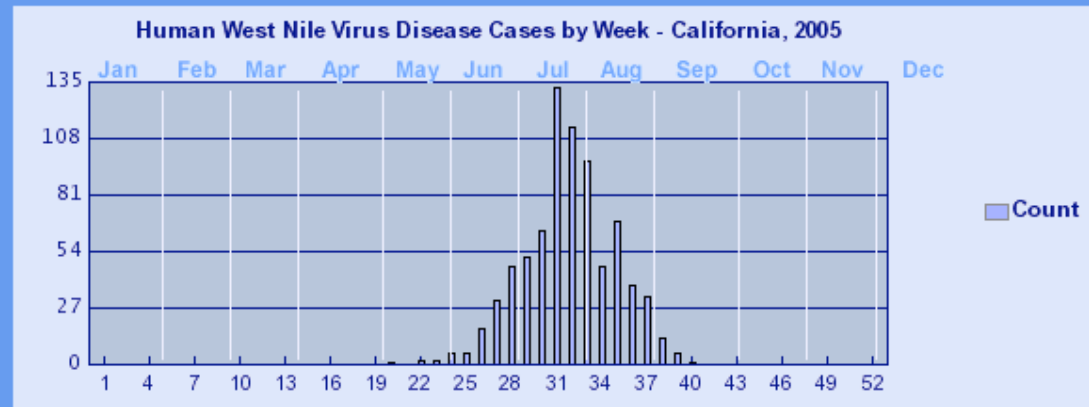
These data are provisional and may be revised or adjusted in the future.





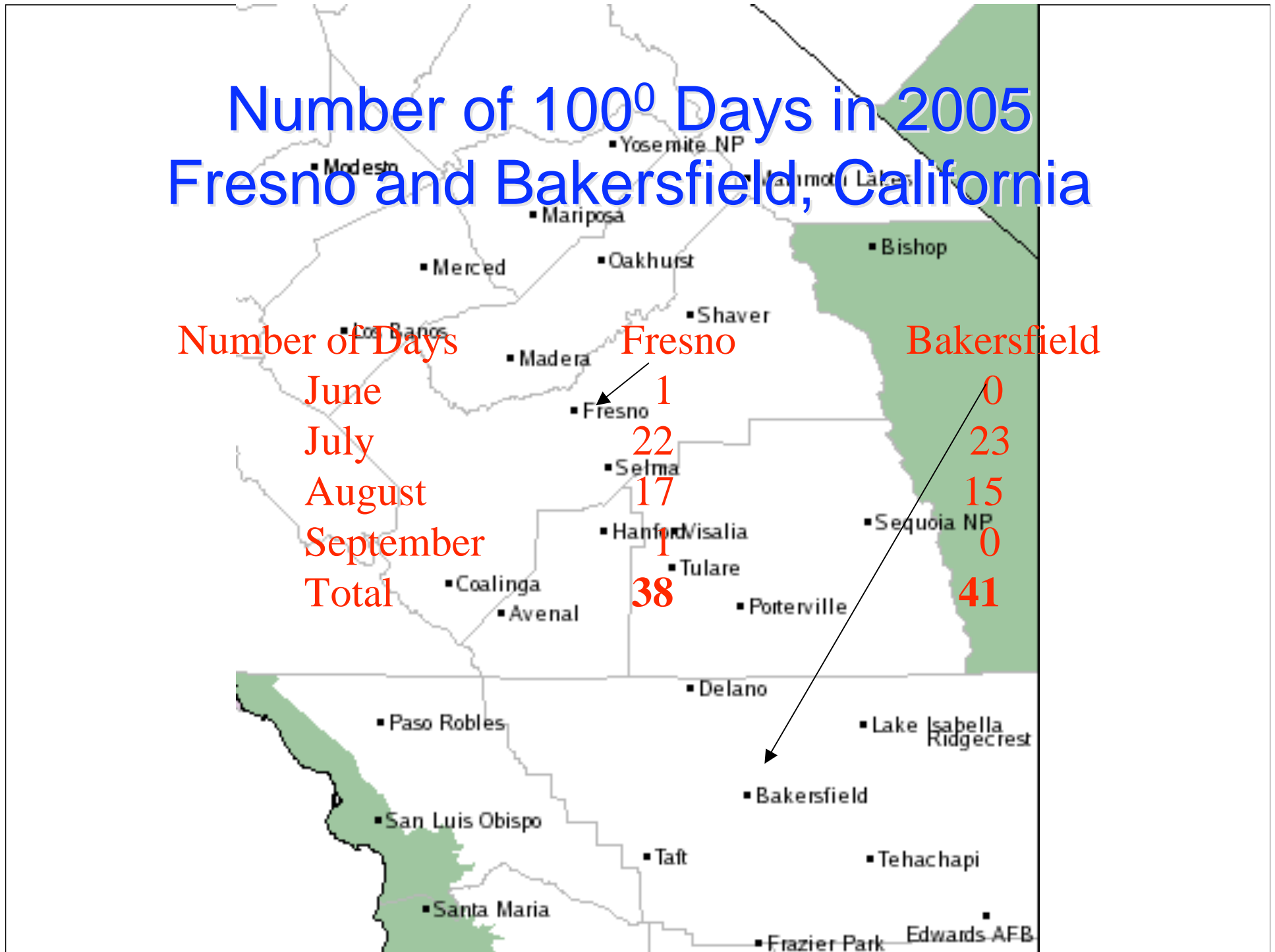
Cumulative 2005 Data as of 3 am, Oct 25, 2005

These data are provisional and may be revised or adjusted in the future.



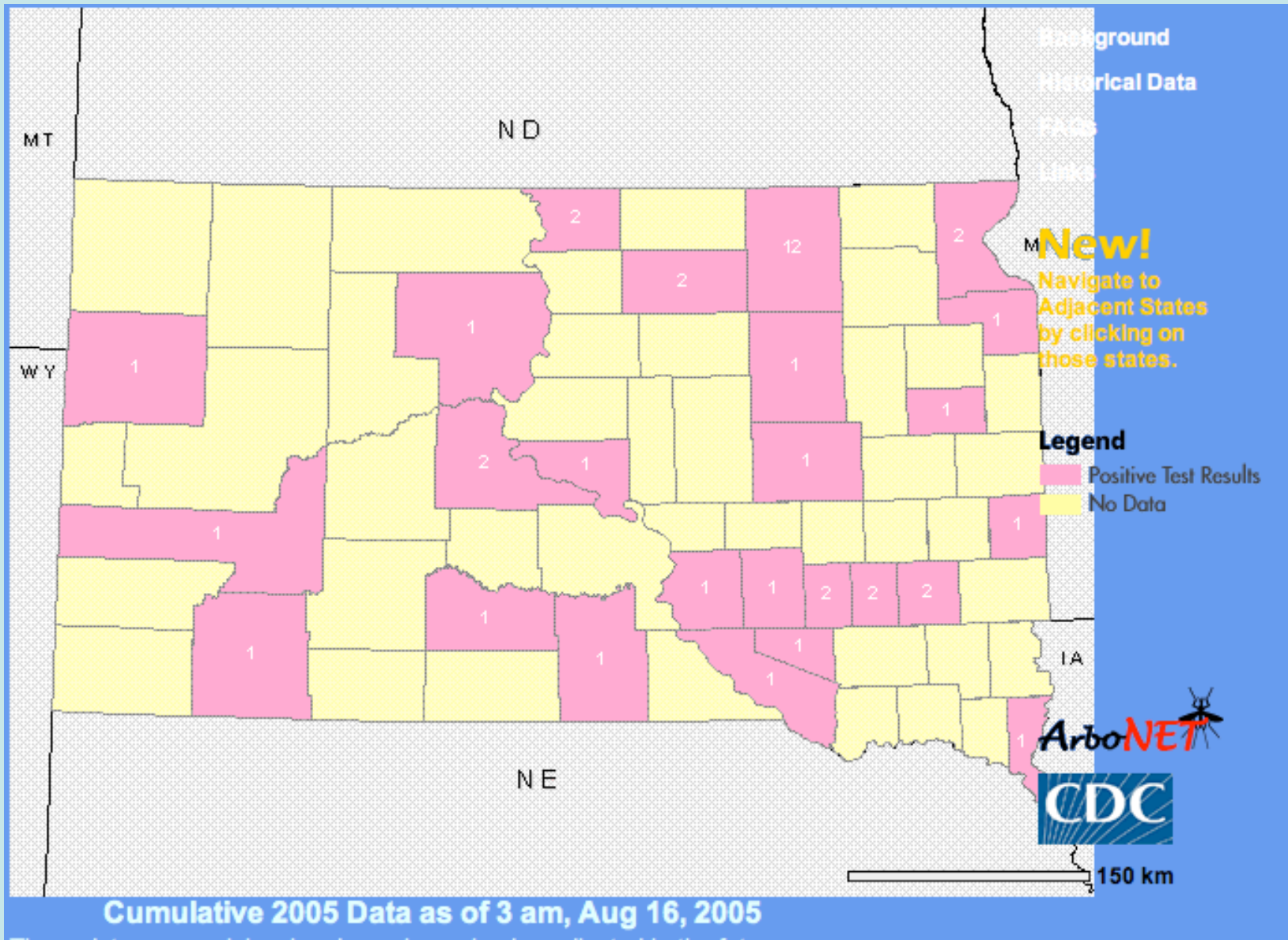
Number of 100^o Days in 2005 Fresno and Bakersfield, California

Number of Days	Fresno	Bakersfield
June	1	0
July	22	23
August	17	15
September	1	0
Total	38	41



..... but it's a dry heat!





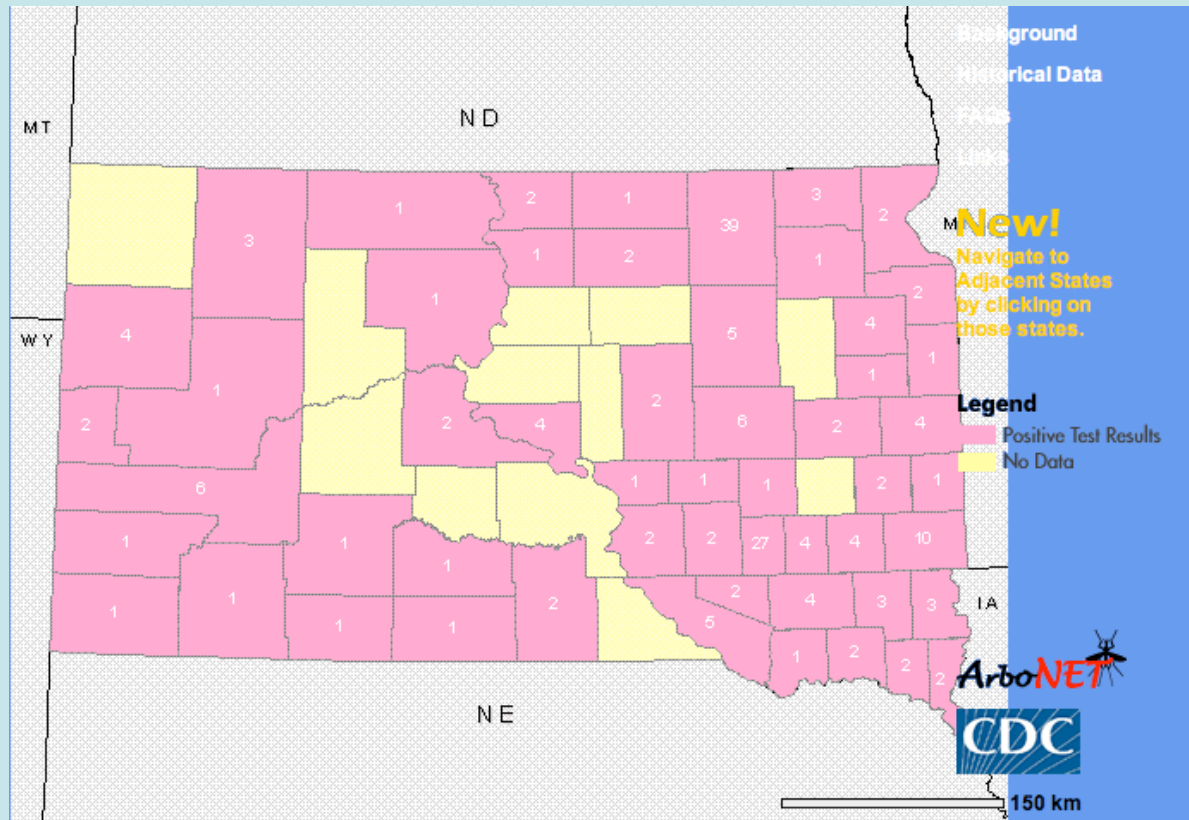
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 Navigate to Adjacent States by clicking on those states.

Legend
 Positive Test Results
 No Data

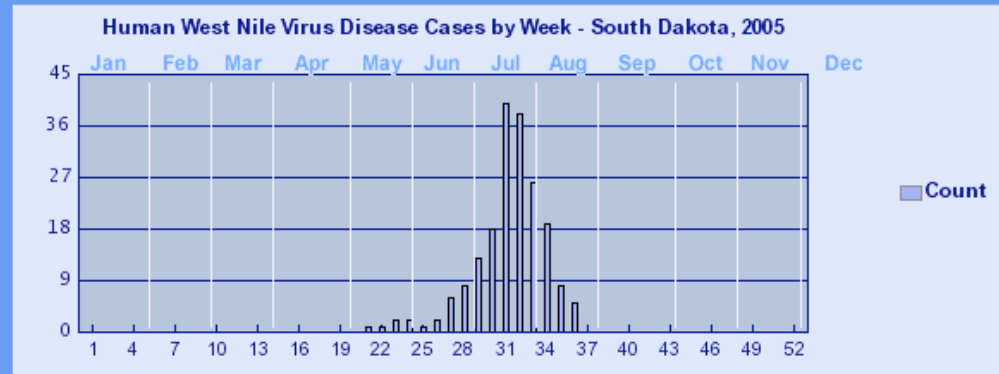


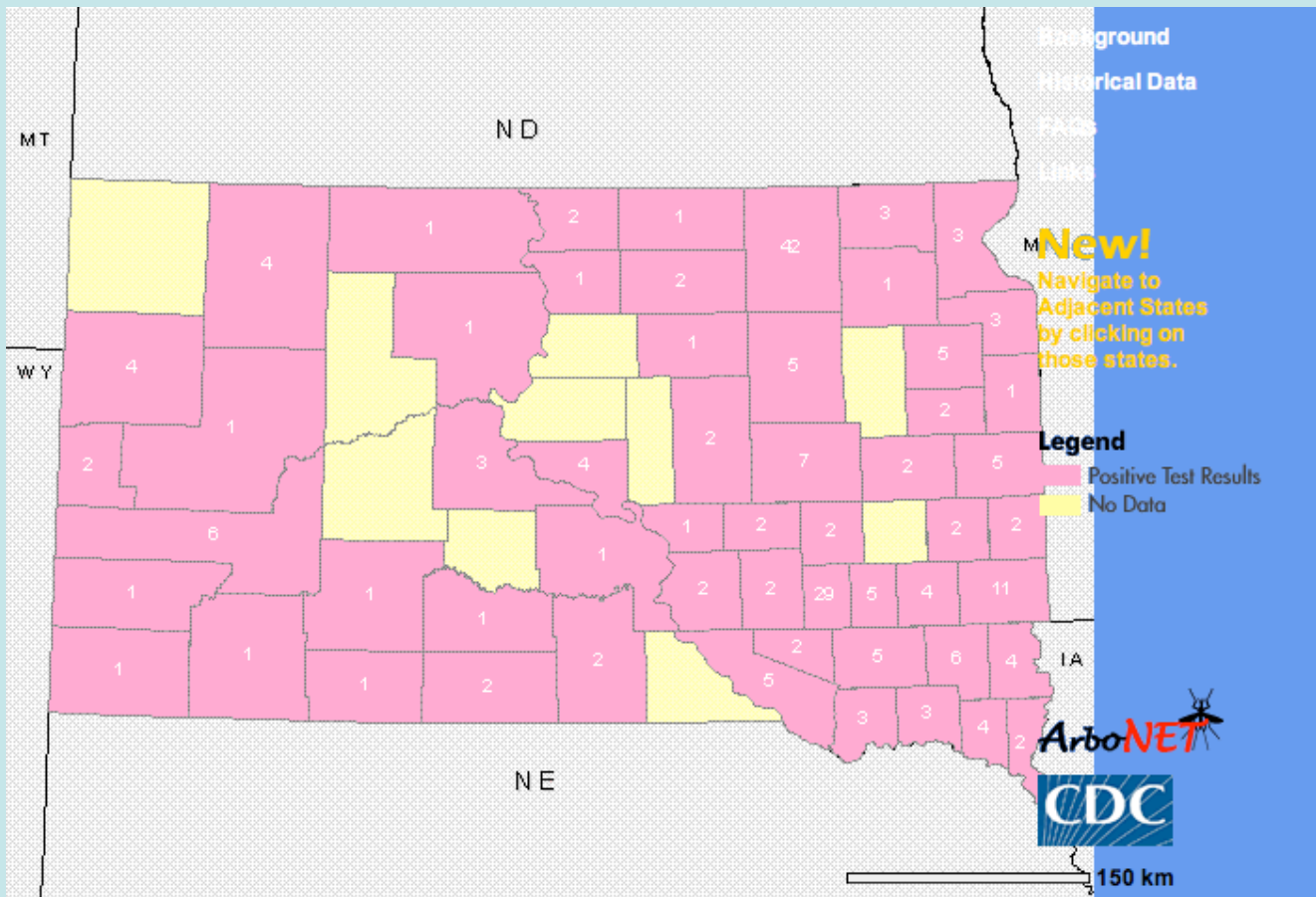
150 km



Cumulative 2005 Data as of 3 am, Sep 20, 2005

These data are provisional and may be revised or adjusted in the future.

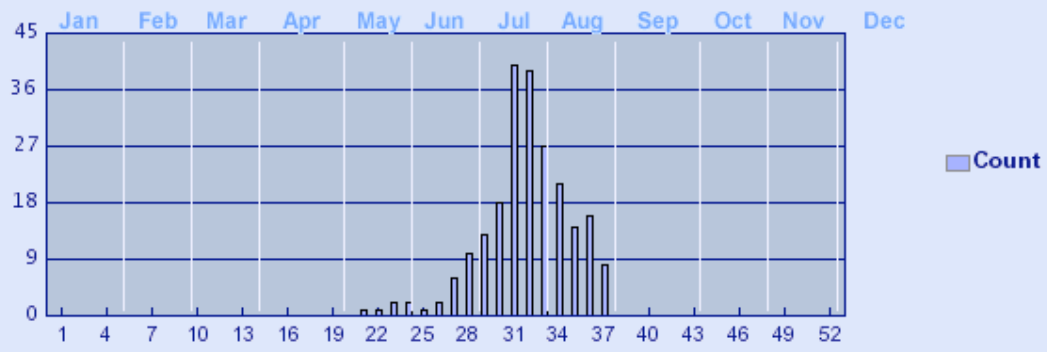


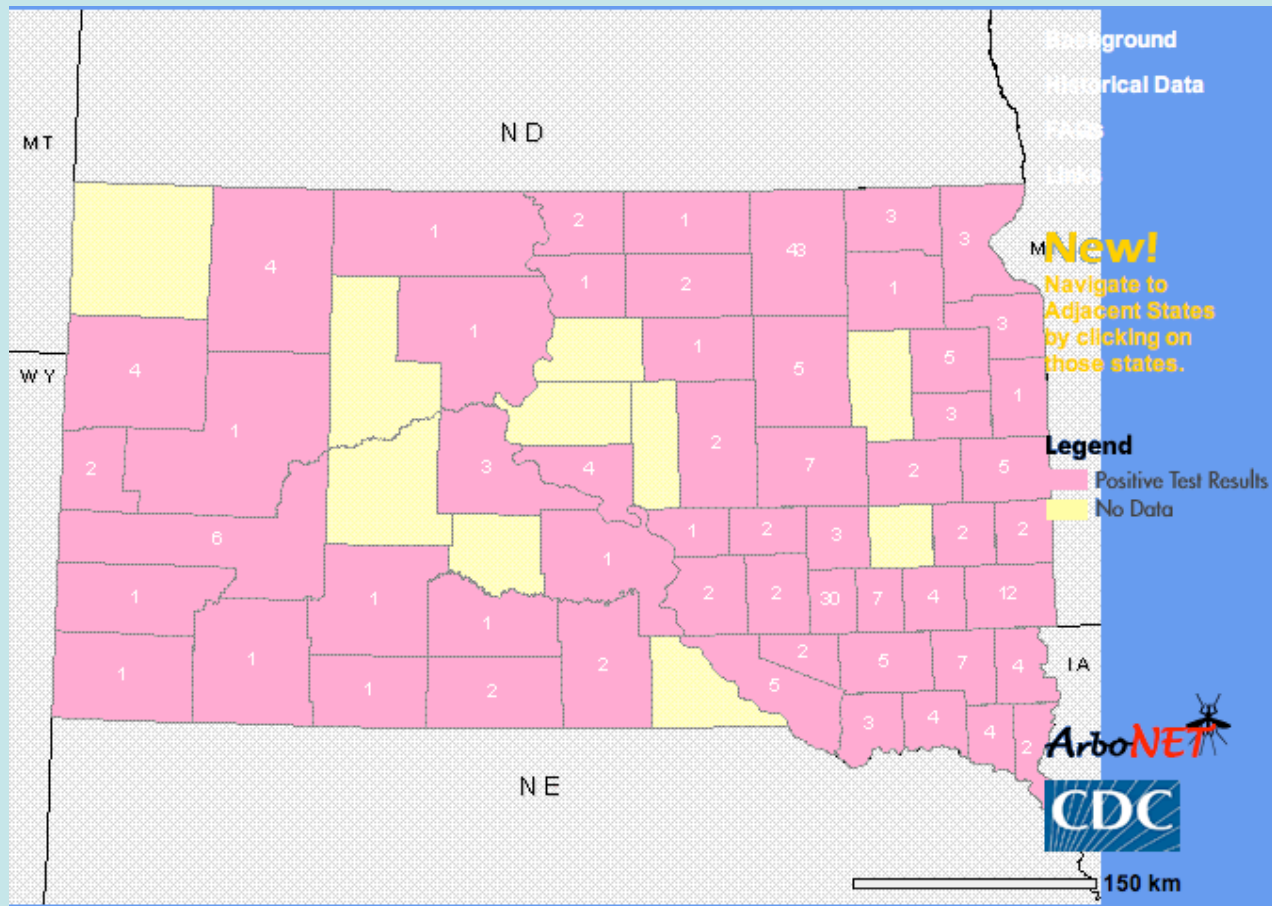


Cumulative 2005 Data as of 3 am, Oct 04, 2005

These data are provisional and may be revised or adjusted in the future.

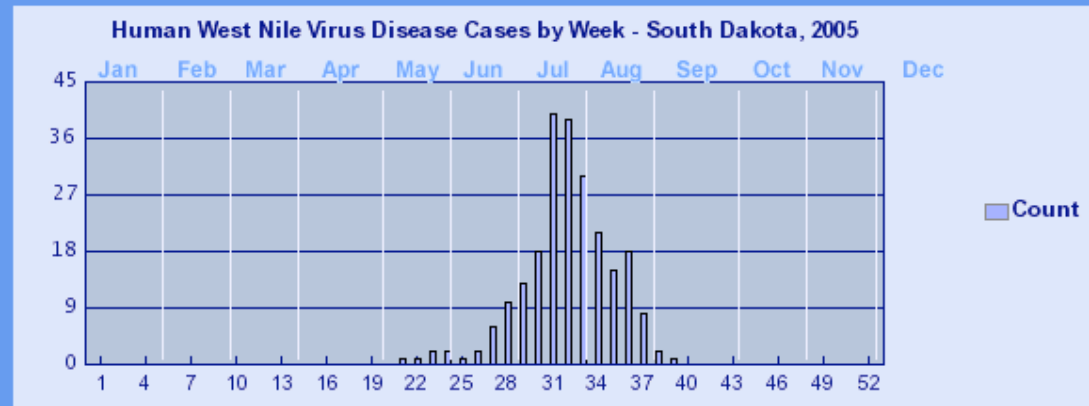
Human West Nile Virus Disease Cases by Week - South Dakota, 2005

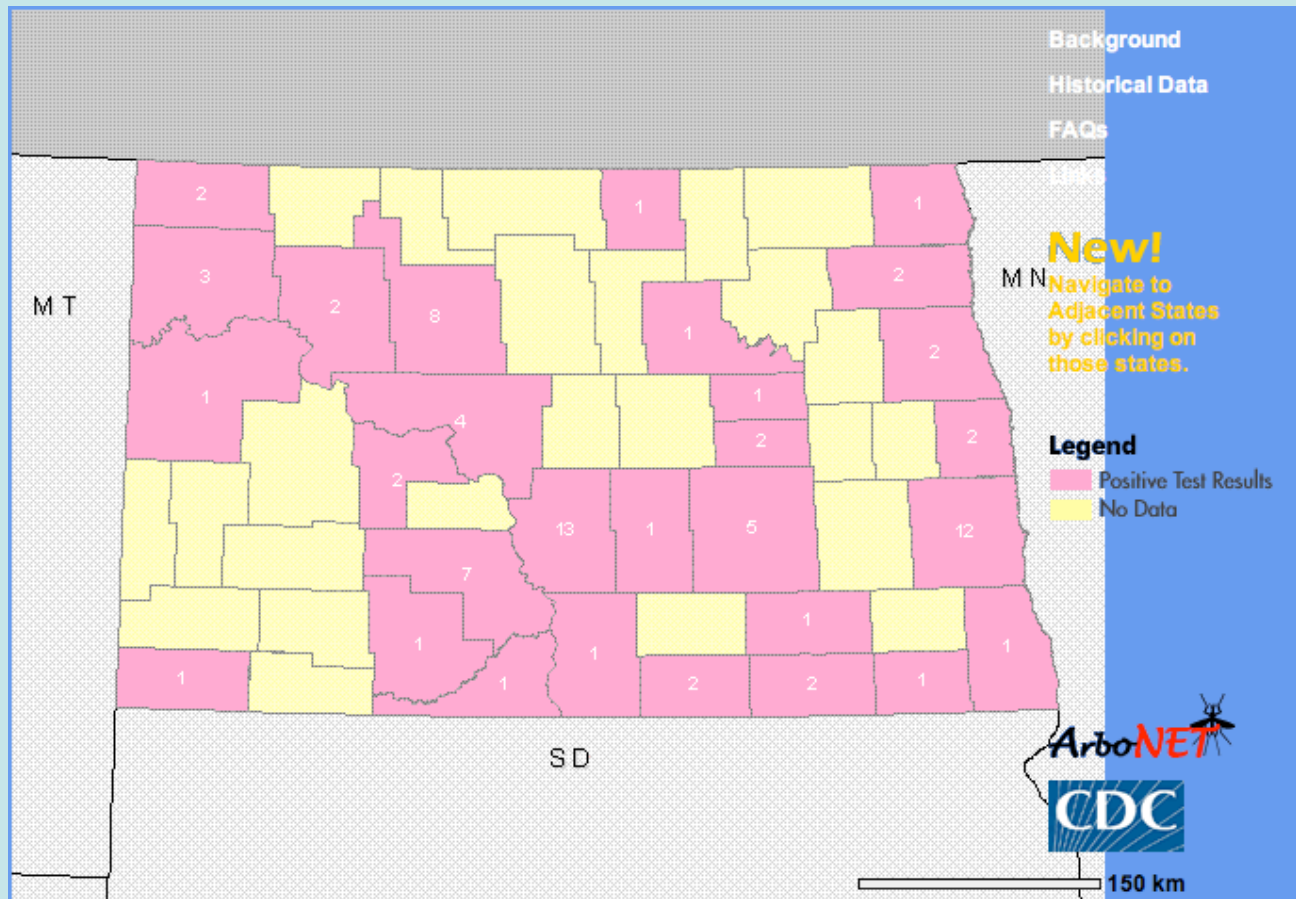




Cumulative 2005 Data as of 3 am, Oct 18, 2005

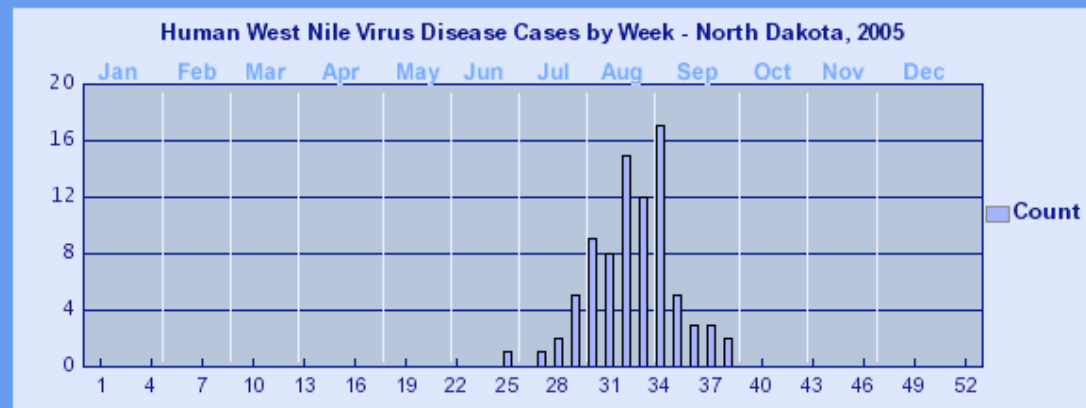
These data are provisional and may be revised or adjusted in the future.



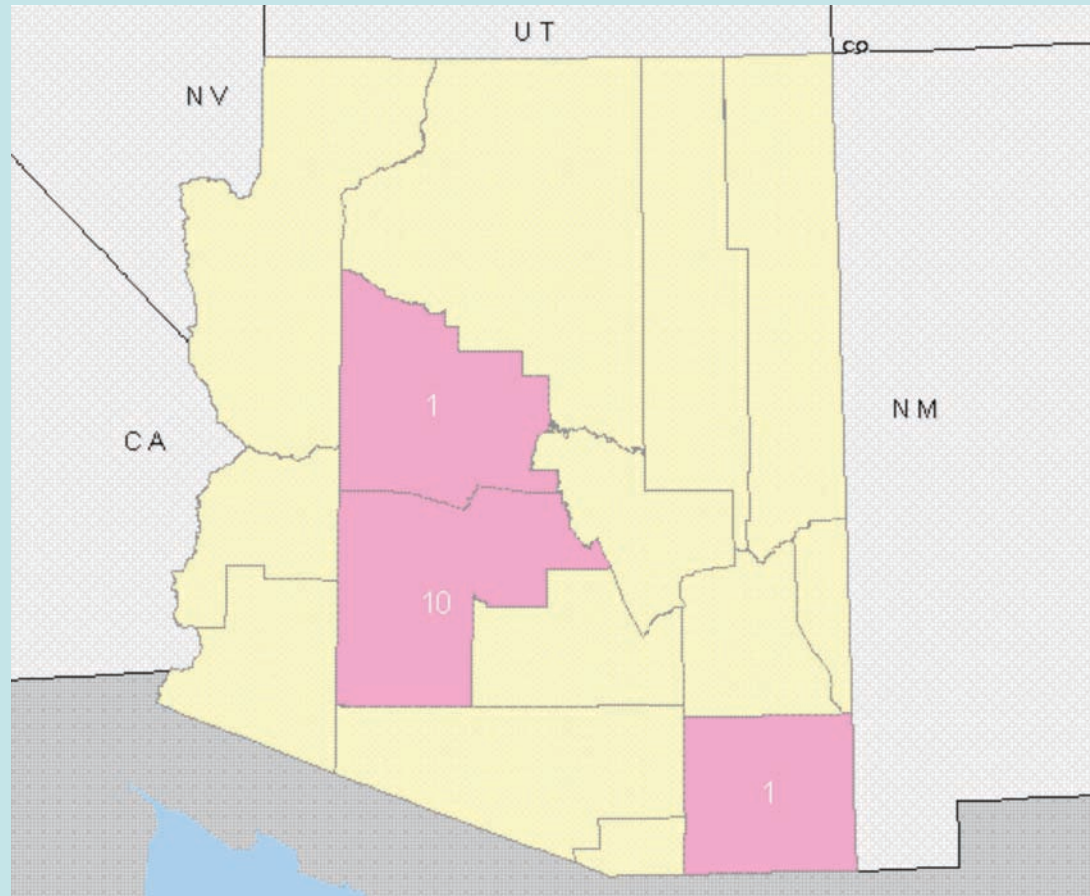


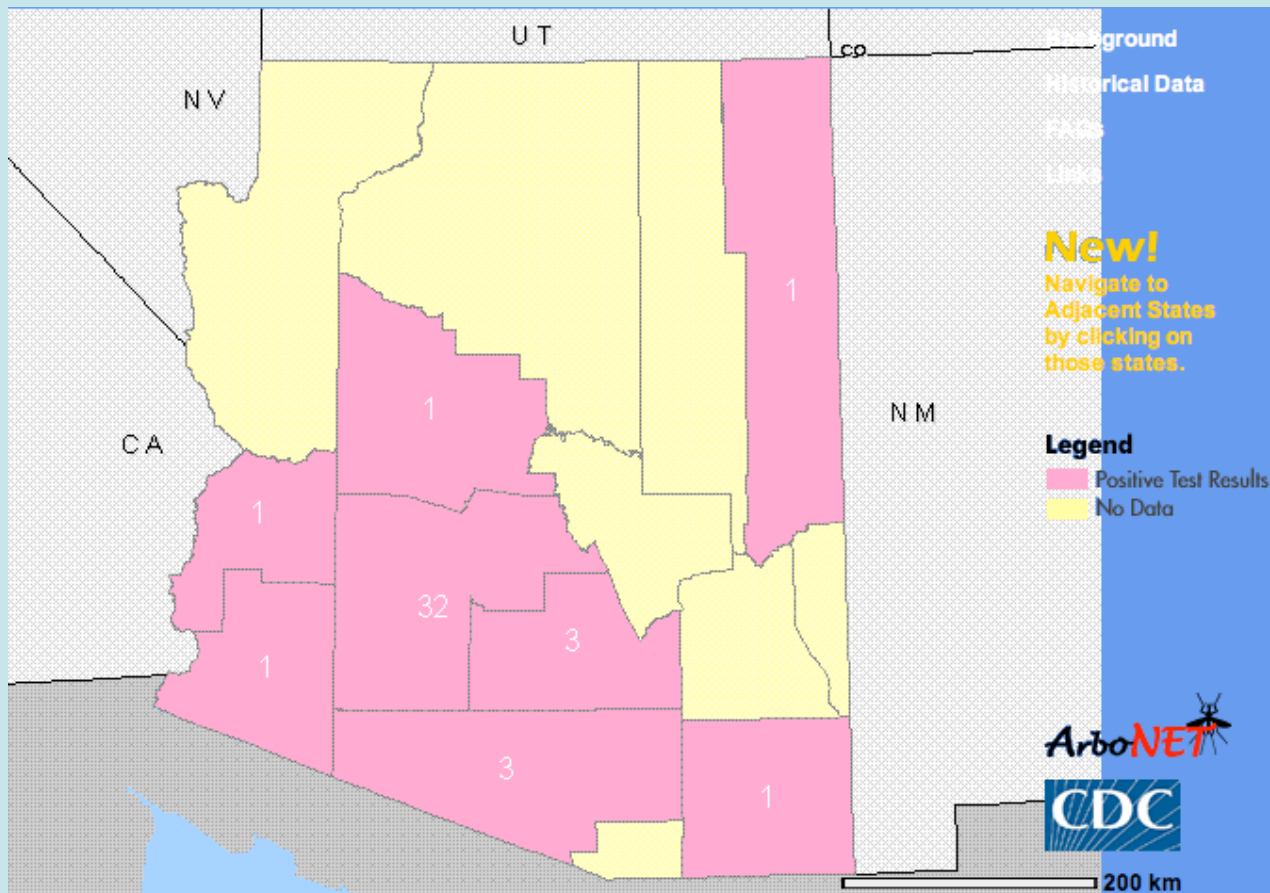
Cumulative 2005 Data as of 3 am, Oct 18, 2005

These data are provisional and may be revised or adjusted in the future.



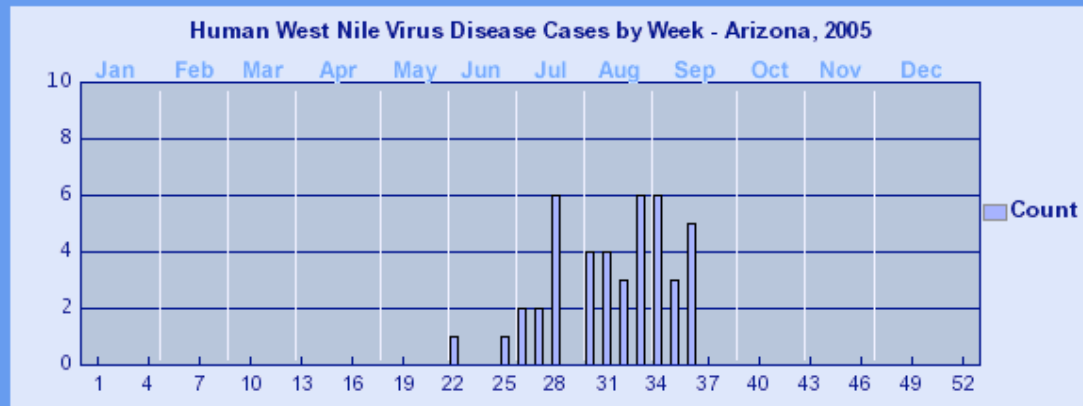
August 3, 2005





Cumulative 2005 Data as of 3 am, Sep 20, 2005

These data are provisional and may be revised or adjusted in the future.



**2005 West Nile Virus Activity
in the United States
(Reported to CDC as of July 26, 2005)*
For [2004](#)/[2003](#) case information.**

State	<u>Neuroinvasive disease</u>	<u>Fever</u>	<u>Other Clinical/ Unspecified</u>	Total Human Cases Reported to CDC	Deaths
Arizona	2	5	0	7	0
Arkansas	0	2	0	2	0
California	6	9	2	17	1
Colorado	0	7	0	7	0
Georgia	0	0	1	1	0
Indiana	1	0	0	1	0
Kansas	0	2	0	2	0
Louisiana	1	0	0	1	0
Minnesota	1	2	0	3	0
Mississippi	0	2	0	2	0
Missouri	1	0	0	1	1
New Mexico	1	1	0	2	0
Ohio	1	0	0	1	0
Pennsylvania	1	0	0	1	0
South Dakota	1	10	0	11	0
Texas	2	0	0	2	0
Totals	18	40	3	61	2

**2005 West Nile Virus Activity
in the United States
(Reported to CDC as of August 2, 2005)*
For [2004](#)/[2003](#) case information.**

State	<u>Neuroinvasive disease</u>	<u>Fever</u>	<u>Other Clinical/ Unspecified</u>	Total Human Cases Reported to CDC	Deaths
Arizona	2	9	1	12	0
Arkansas	0	2	0	2	0
California	15	24	6	45	2
Colorado	0	10	0	10	0
Georgia	0	0	1	1	0
Illinois	1	0	1	2	0
Indiana	1	0	0	1	0
Kansas	0	2	0	2	0
Louisiana	1	0	0	1	0
Minnesota	2	2	0	4	0
Mississippi	1	2	0	3	0
Missouri	1	0	0	1	1
New Mexico	1	1	0	2	0
New York	0	3	0	3	0
Ohio	1	0	0	1	0
Pennsylvania	1	0	0	1	0
South Dakota	1	14	0	15	0
Texas	3	0	0	3	0
Totals	31	69	9	109	3

**2005 West Nile Virus Activity
in the United States
(Reported to CDC as of August 9, 2005)*
For [2004](#)/[2003](#) case information.**

State	<u>Neuroinvasive disease</u>	<u>Fever</u>	<u>Other Clinical/ Unspecified</u>	Total Human Cases Reported to CDC	Deaths
Arizona	5	9	2	16	0
Arkansas	0	2	0	2	0
California	26	46	12	84	2
Colorado	0	11	0	11	0
Florida	1	1	1	3	0
Georgia	0	0	1	1	0
Illinois	2	1	0	3	0
Indiana	1	0	0	1	0
Kansas	1	2	0	3	0
Louisiana	1	0	0	1	0
Minnesota	2	4	0	6	0
Mississippi	2	2	0	4	0
Missouri	1	1	0	2	1
Nevada	1	0	0	1	0
New Mexico	2	1	0	3	0
New York	0	3	0	3	0
North Carolina	1	0	0	1	0
North Dakota	2	4	0	6	0
Ohio	1	0	0	1	0
Pennsylvania	2	1	0	3	0
South Dakota	4	24	0	28	0
Texas	4	0	0	4	0
Totals	59	112	16	187	3

**2005 West Nile Virus Activity
in the United States
(Reported to CDC as of August 16, 2005)*
For [2004](#)/[2003](#) case information.**

State	<u>Neuroinvasive disease</u>	<u>Fever</u>	<u>Other Clinical/ Unspecified</u>	Total Human Cases Reported to CDC	Deaths
Alabama	1	0	0	1	0
Arizona	5	9	2	16	0
Arkansas	0	2	0	2	0
California	48	82	16	146	4
Colorado	0	11	0	11	0
Florida	3	1	1	5	0
Georgia	0	0	1	1	0
Illinois	9	4	1	14	0
Indiana	1	0	0	1	0
Kansas	1	2	0	3	0
Louisiana	26	10	0	36	2
Minnesota	2	5	0	7	0
Mississippi	4	3	0	7	1
Missouri	1	0	1	2	1
Nebraska	4	5	0	9	0
Nevada	1	1	0	2	0
New Mexico	2	1	0	3	0
New York	0	3	0	3	0
North Carolina	1	0	0	1	0
North Dakota	2	4	0	6	0
Ohio	2	0	0	2	0
Pennsylvania	2	1	0	3	0
South Dakota	7	36	0	43	0
Texas	9	0	0	9	0
Totals	131	180	22	333	8

**2005 West Nile Virus Activity
in the United States
(Reported to CDC as of August 23, 2005)*
For [2004](#)/[2003](#) case information.**

State	<u>Neuroinvasive disease</u>	<u>Fever</u>	<u>Other Clinical/ Unspecified</u>	Total Human Cases Reported to CDC	Deaths
Alabama	1	0	0	1	0
Arizona	7	9	3	19	0
Arkansas	0	5	0	5	0
California	79	135	20	234	6
Colorado	2	19	0	21	0
Florida	3	4	1	8	0
Georgia	0	1	1	2	0
Illinois	19	9	0	28	0
Indiana	1	0	0	1	0
Kansas	1	2	0	3	0
Louisiana	40	12	0	52	4
Minnesota	3	8	0	11	0
Mississippi	5	4	0	9	1
Missouri	1	0	1	2	1
Nebraska	4	5	0	9	0
Nevada	2	1	0	3	0
New Mexico	4	2	0	6	0
North Carolina	1	0	0	1	0
North Dakota	2	14	0	16	0
Ohio	6	0	0	6	0
Oklahoma	1	0	0	1	0
Pennsylvania	2	1	0	3	0
South Dakota	7	36	0	43	0
Texas	13	0	0	13	0
Utah	1	3	0	4	0
Totals	205	270	26	501	12

**2005 West Nile Virus Activity
in the United States
(Reported to CDC as of August 30, 2005)*
For [2004/2003](#) case information.**

State	<u>Neuroinvasive disease</u>	<u>Fever</u>	<u>Other Clinical/ Unspecified</u>	Total Human Cases Reported to CDC	Deaths
Alabama	2	0	0	2	0
Arizona	7	9	3	19	0
Arkansas	0	5	0	5	0
California	93	155	20	268	7
Colorado	2	19	0	21	0
Florida	4	5	1	10	0
Georgia	0	1	1	2	0
Idaho	0	1	0	1	0
Illinois	29	16	1	46	0
Indiana	1	0	0	1	0
Iowa	1	1	0	2	0
Kansas	1	2	0	3	0
Louisiana	40	12	0	52	4
Maryland	1	0	0	1	0
Michigan	2	1	1	4	0
Minnesota	5	8	0	13	1
Mississippi	5	5	0	10	1
Missouri	1	2	2	5	1
Montana	1	1	0	2	0
Nebraska	11	18	0	29	0
Nevada	3	2	0	5	0
New Mexico	6	3	0	9	0
North Carolina	1	1	0	2	0
North Dakota	2	14	0	16	0
Ohio	9	2	0	11	0
Oklahoma	1	0	0	1	0
Pennsylvania	3	4	0	7	0
South Dakota	19	90	1	110	1
Texas	21	2	0	23	1
Utah	3	4	0	7	0
Wisconsin	1	1	0	2	0
Totals	275	384	30	689	16

**2005 West Nile Virus Activity
in the United States
(Reported to CDC as of September 13, 2005)*
For [2004/2003](#) case information.**

State	Neuroinvasive disease	Fever	Other Clinical/ Unspecified	Total Human Cases Reported to CDC	Deaths
Alabama	3	2	0	5	0
Arizona	14	10	5	29	0
Arkansas	1	5	0	6	0
California	175	319	54	548	9
Colorado	5	36	0	41	0
Connecticut	2	0	0	2	0
Florida	4	7	1	12	0
Georgia	1	1	1	3	0
Idaho	2	5	2	9	0
Illinois	71	42	10	123	2
Indiana	1	0	0	1	0
Iowa	2	3	1	6	1
Kansas	2	2	0	4	0
Kentucky	1	0	0	1	0
Louisiana	50	16	0	66	4
Maryland	1	0	0	1	0
Michigan	5	1	1	7	0
Minnesota	7	13	0	20	1
Mississippi	12	11	0	23	2
Missouri	3	4	2	9	1
Montana	5	6	0	11	0
Nebraska	18	39	0	57	1
Nevada	6	11	0	17	0
New Mexico	10	4	0	14	1
New York	2	1	0	3	0
North Carolina	1	1	0	2	0
North Dakota	2	14	0	16	0
Ohio	10	2	0	12	0
Oklahoma	1	0	0	1	0
Oregon	0	3	0	3	0
Pennsylvania	6	5	0	11	0
South Carolina	1	0	0	1	1
South Dakota	28	140	1	169	1
Tennessee	2	1	0	3	0
Texas	30	6	0	36	4
Utah	10	13	0	23	1
Wisconsin	3	1	0	4	0
Totals	497	724	78	1299	29

**2005 West Nile Virus Activity
in the United States
(Reported to CDC as of September 20, 2005)*
Archived WNV Activity is being updated**

State	<u>Neuroinvasive disease</u>	<u>Fever</u>	<u>Other Clinical/ Unspecified</u>	Total Human Cases Reported to CDC	Deaths
Alabama	3	2	0	5	0
Arizona	16	19	8	43	2
Arkansas	1	5	0	6	0
California	194	354	60	608	13
Colorado	7	43	0	50	0
Connecticut	2	0	0	2	0
Florida	4	8	1	13	0
Georgia	1	1	3	5	0
Idaho	2	6	4	12	0
Illinois	88	56	15	159	3
Indiana	1	0	0	1	0
Iowa	2	4	1	7	1
Kansas	2	2	0	4	0
Kentucky	2	0	0	2	0
Louisiana	50	16	0	66	4
Maryland	1	0	0	1	0
Michigan	9	2	4	15	2
Minnesota	7	13	0	20	1
Mississippi	12	12	0	24	3
Missouri	5	6	1	12	1
Montana	7	11	0	18	0
Nebraska	18	40	0	58	1
Nevada	6	12	0	18	0
New Mexico	11	6	0	17	1
New York	3	2	0	5	0
North Carolina	1	1	0	2	0
North Dakota	2	14	0	16	0
Ohio	19	3	0	22	0
Oklahoma	1	1	0	2	0
Oregon	0	3	0	3	0
Pennsylvania	7	6	0	13	0
South Carolina	1	0	0	1	1
South Dakota	29	160	1	190	1
Tennessee	6	1	0	7	1
Texas	35	11	0	46	5
Utah	14	19	0	33	1
Wisconsin	3	1	0	4	0
Wyoming	2	0	0	2	0
Totals	574	840	98	1512	41

**2005 West Nile Virus Activity
in the United States
(Reported to CDC as of September 27, 2005)*
Archived WNV Activity is being updated**

State	<u>Neuroinvasive disease</u>	<u>Fever</u>	<u>Other Clinical/ Unspecified</u>	Total Human Cases Reported to CDC	Deaths
Alabama	4	2	0	6	1
Arizona	16	22	12	50	2
Arkansas	3	8	0	11	0
California	220	396	65	681	15
Colorado	14	61	0	75	1
Connecticut	2	0	0	2	0
Florida	5	12	1	18	0
Georgia	1	1	3	5	0
Idaho	2	6	4	12	0
Illinois	96	59	17	172	3
Indiana	5	0	4	9	1
Iowa	5	8	3	16	2
Kansas	5	2	0	7	0
Kentucky	3	0	0	3	0
Louisiana	58	23	0	81	6
Maryland	2	0	0	2	0
Massachusetts	2	2	0	4	0
Michigan	13	3	4	20	3
Minnesota	11	17	0	28	1
Mississippi	23	21	0	44	4
Missouri	6	7	1	14	1
Montana	7	13	0	20	0
Nebraska	19	49	0	68	1
Nevada	8	13	0	21	0
North Carolina	1	1	0	2	0
North Dakota	2	14	0	16	0
Ohio	31	5	0	36	0
Oklahoma	1	2	0	3	0
Oregon	0	5	0	5	0
Pennsylvania	11	8	0	19	0
Rhode Island	1	0	0	1	0
South Carolina	1	0	0	1	1
South Dakota	32	175	1	208	1
Tennessee	8	1	0	9	1
Texas	41	21	0	62	5
Utah	16	20	0	36	1
Wisconsin	3	2	0	5	1
Wyoming	1	2	0	3	0
Totals	696	993	115	1804	52

**2005 West Nile Virus Activity
in the United States
(Reported to CDC as of October 4, 2005)*
Archived WNV Activity is being updated**

State	Neuroinvasive disease	Fever	Other Clinical/ Unspecified	Total Human Cases Reported to CDC	Deaths
Alabama	5	2	0	7	1
Arizona	19	29	15	63	2
Arkansas	8	13	0	21	0
California	239	429	74	742	16
Colorado	14	61	0	75	1
Connecticut	2	0	0	2	0
Florida	6	12	1	19	0
Georgia	5	3	3	11	0
Idaho	2	6	4	12	0
Illinois	105	72	19	196	3
Indiana	5	0	4	9	1
Iowa	6	10	7	23	2
Kansas	5	2	0	7	0
Kentucky	3	0	0	3	0
Louisiana	58	23	0	81	6
Maryland	4	0	0	4	0
Massachusetts	2	2	0	4	0
Michigan	17	3	3	23	3
Minnesota	14	20	0	34	1
Mississippi	33	26	0	59	4
Missouri	6	7	1	14	1
Montana	7	16	0	23	0
Nebraska	19	49	0	68	1
Nevada	8	14	0	22	0
New Jersey	2	0	0	2	0
New Mexico	15	11	0	26	1
New York	3	2	0	5	0
North Carolina	1	1	1	3	0
North Dakota	2	14	0	16	0
Ohio	41	8	0	49	1
Oklahoma	1	2	0	3	0
Oregon	0	5	0	5	0
Pennsylvania	13	8	0	21	0
Rhode Island	1	0	0	1	0
South Carolina	3	0	0	3	1
South Dakota	33	187	1	221	2
Tennessee	8	1	0	9	1
Texas	52	24	0	76	5
Utah	17	24	0	41	1
Wisconsin	4	3	0	7	1
Wyoming	2	4	0	6	0
Totals	790	1093	133	2016	55

**2005 West Nile Virus Activity
in the United States
(Reported to CDC as of October 18, 2005)*
Archived WNV Activity is being updated**

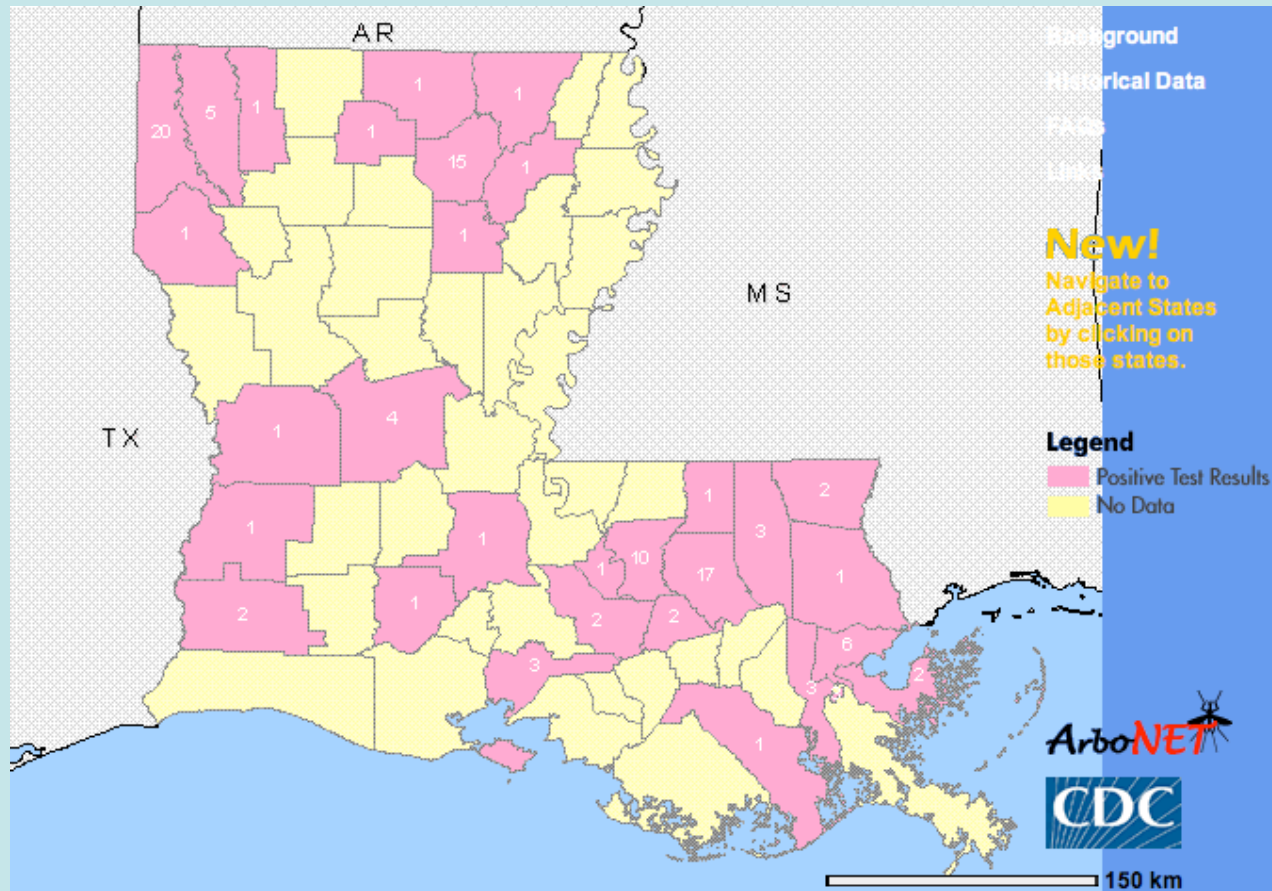
State	Neuroinvasive disease	Fever	Other Clinical/ Unspecified	Total Human Cases Reported to CDC	Deaths
Alabama	5	2	0	7	1
Arizona	25	33	30	88	3
Arkansas	8	13	0	21	0
California	247	448	76	771	16
Colorado	14	61	0	75	1
Connecticut	4	2	0	6	1
Delaware	1	0	2	3	0
Florida	6	13	0	19	0
Georgia	7	5	3	15	0
Idaho	2	7	4	13	0
Illinois	120	78	20	218	5
Indiana	7	0	8	15	1
Iowa	10	14	7	31	2
Kansas	6	2	0	8	0
Kentucky	4	0	0	4	1
Louisiana	58	23	0	81	6
Maryland	4	0	0	4	0
Massachusetts	4	1	0	5	0
Michigan	29	4	8	41	4
Minnesota	16	22	0	38	2
Mississippi	35	29	0	64	4
Missouri	11	10	0	21	1
Montana	8	17	0	25	0
Nebraska	19	49	0	68	1
Nevada	12	15	2	29	0
New Jersey	2	1	0	3	0
New Mexico	17	12	0	29	2
New York	8	4	0	12	1
North Carolina	2	1	0	3	0
North Dakota	11	72	0	83	0
Ohio	44	12	0	56	1
Oklahoma	4	5	0	9	0
Oregon	0	5	0	5	0
Pennsylvania	14	10	0	24	0
Rhode Island	1	0	0	1	0
South Carolina	4	0	0	4	1
South Dakota	34	192	4	230	2
Tennessee	11	1	0	12	1
Texas	70	42	0	112	6
Utah	19	26	0	45	1
Wisconsin	7	4	0	11	1
Wyoming	3	4	0	7	1
Totals	913	1239	164	2316	66

**2005 West Nile Virus Activity
in the United States
(Reported to CDC as of October 25, 2005)*
Archived WNV Activity is being updated**

State	Neuroinvasive disease	Fever	Other Clinical/ Unspecified	Total Human Cases Reported to CDC	Deaths
Alabama	6	2	0	8	1
Arizona	25	33	30	88	3
Arkansas	8	13	0	21	0
California	247	448	76	771	16
Colorado	14	61	0	75	1
Connecticut	4	2	0	6	1
Delaware	1	0	0	1	0
Florida	7	13	0	20	1
Georgia	7	5	5	17	1
Idaho	2	7	4	13	0
Illinois	126	84	23	233	6
Indiana	7	0	8	15	1
Iowa	12	15	8	35	2
Kansas	9	3	0	12	1
Kentucky	4	0	0	4	1
Louisiana	78	33	0	111	6
Maryland	4	1	0	5	0
Massachusetts	4	1	0	5	0
Michigan	34	4	10	48	4
Minnesota	17	26	0	43	3
Mississippi	37	31	0	68	4
Missouri	13	12	0	25	1
Montana	8	17	0	25	0
Nebraska	26	64	0	90	1
Nevada	12	15	2	29	0
New Jersey	2	2	0	4	0
New Mexico	17	12	0	29	2
New York	10	4	0	14	1
North Carolina	2	1	0	3	0
North Dakota	11	72	0	83	0
Ohio	44	12	0	56	1
Oklahoma	7	5	0	12	0
Oregon	0	5	0	5	0
Pennsylvania	14	11	0	25	0
Rhode Island	1	0	0	1	0
South Carolina	4	0	0	4	1
South Dakota	34	192	4	230	2
Tennessee	11	1	0	12	1
Texas	75	42	0	117	8
Utah	21	30	0	51	1
Wisconsin	7	5	0	12	1
Wyoming	4	5	0	9	1
Totals	976	1289	170	2435	73

**2005 West Nile Virus Activity
in the United States
(Reported to CDC as of November 1, 2005)*
Archived WNV Activity is being updated**

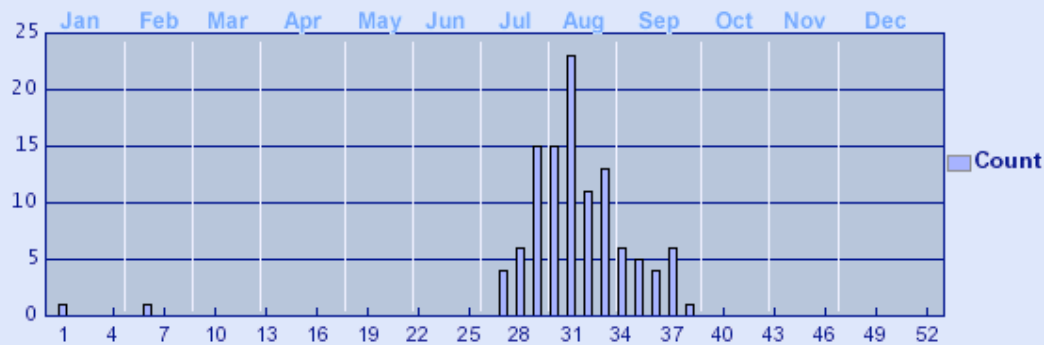
State	Neuroinvasive disease	Fever	Other Clinical/ Unspecified	Total Human Cases Reported to CDC	Deaths
Alabama	6	3	0	9	2
Arizona	41	42	19	102	4
Arkansas	8	13	0	21	0
California	269	476	79	824	18
Colorado	19	72	0	91	2
Connecticut	4	2	0	6	1
Delaware	1	0	1	2	0
Florida	8	13	0	21	1
Georgia	7	6	4	17	1
Idaho	2	7	4	13	0
Illinois	130	86	25	241	8
Indiana	10	1	11	22	1
Iowa	12	18	6	36	2
Kansas	8	4	0	12	1
Kentucky	4	0	0	4	1
Louisiana	78	33	0	111	6
Maryland	4	1	0	5	0
Massachusetts	4	1	0	5	0
Michigan	34	4	10	48	4
Minnesota	17	26	0	43	3
Mississippi	39	31	0	70	6
Missouri	13	12	0	25	1
Montana	8	17	0	25	0
Nebraska	26	64	0	90	1
Nevada	13	15	2	30	0
New Jersey	2	2	0	4	0
New Mexico	18	13	0	31	2
New York	10	4	0	14	1
North Carolina	2	1	0	3	0
North Dakota	12	74	0	86	0
Ohio	44	12	0	56	1
Oklahoma	9	7	0	16	0
Oregon	0	5	0	5	0
Pennsylvania	14	11	0	25	0
Rhode Island	1	0	0	1	0
South Carolina	4	0	0	4	1
South Dakota	35	196	4	235	2
Tennessee	12	1	0	13	1
Texas	92	47	0	139	9
Utah	21	30	0	51	1
Wisconsin	8	6	0	14	1
Wyoming	4	7	0	11	1
Totals	1053	1363	165	2581	83



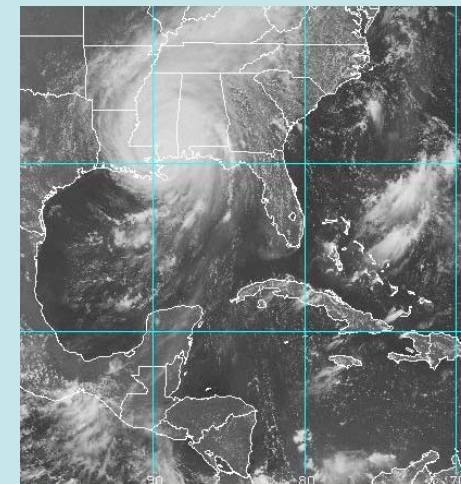
Cumulative 2005 Data as of 3 am, Oct 25, 2005

These data are provisional and may be revised or adjusted in the future.

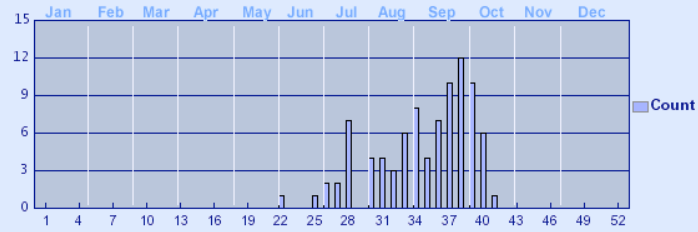
Human West Nile Virus Disease Cases by Week - Louisiana, 2005



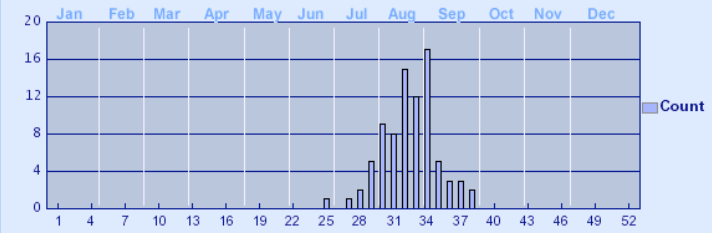
Katrina hit August 29th



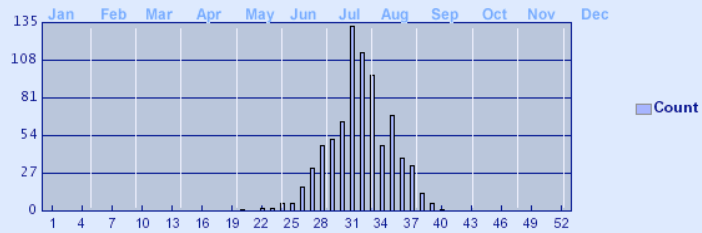
Human West Nile Virus Disease Cases by Week - Arizona, 2005



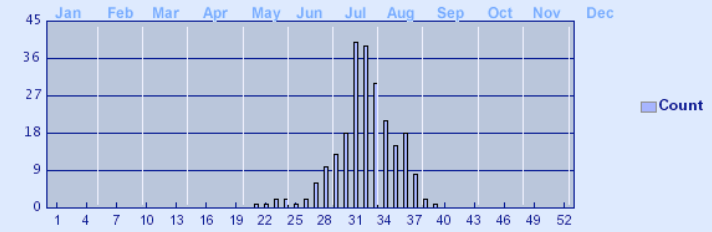
Human West Nile Virus Disease Cases by Week - North Dakota, 2005



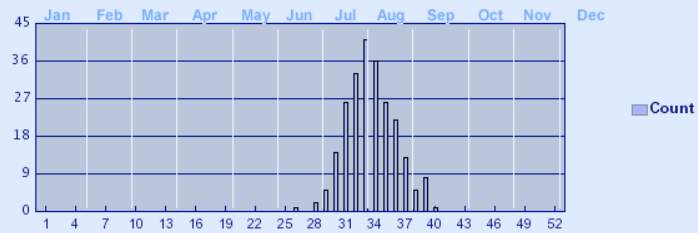
Human West Nile Virus Disease Cases by Week - California, 2005



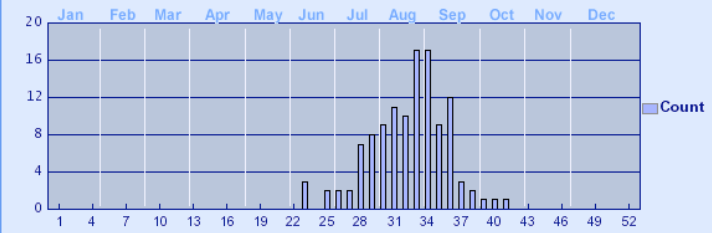
Human West Nile Virus Disease Cases by Week - South Dakota, 2005



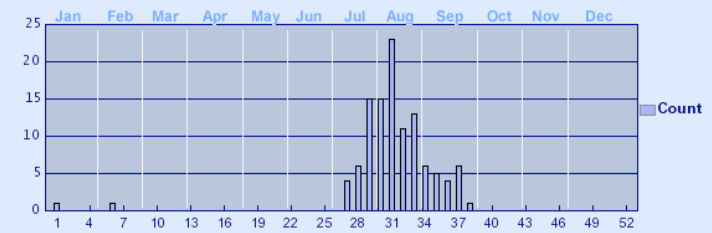
Human West Nile Virus Disease Cases by Week - Illinois, 2005



Human West Nile Virus Disease Cases by Week - Texas, 2005



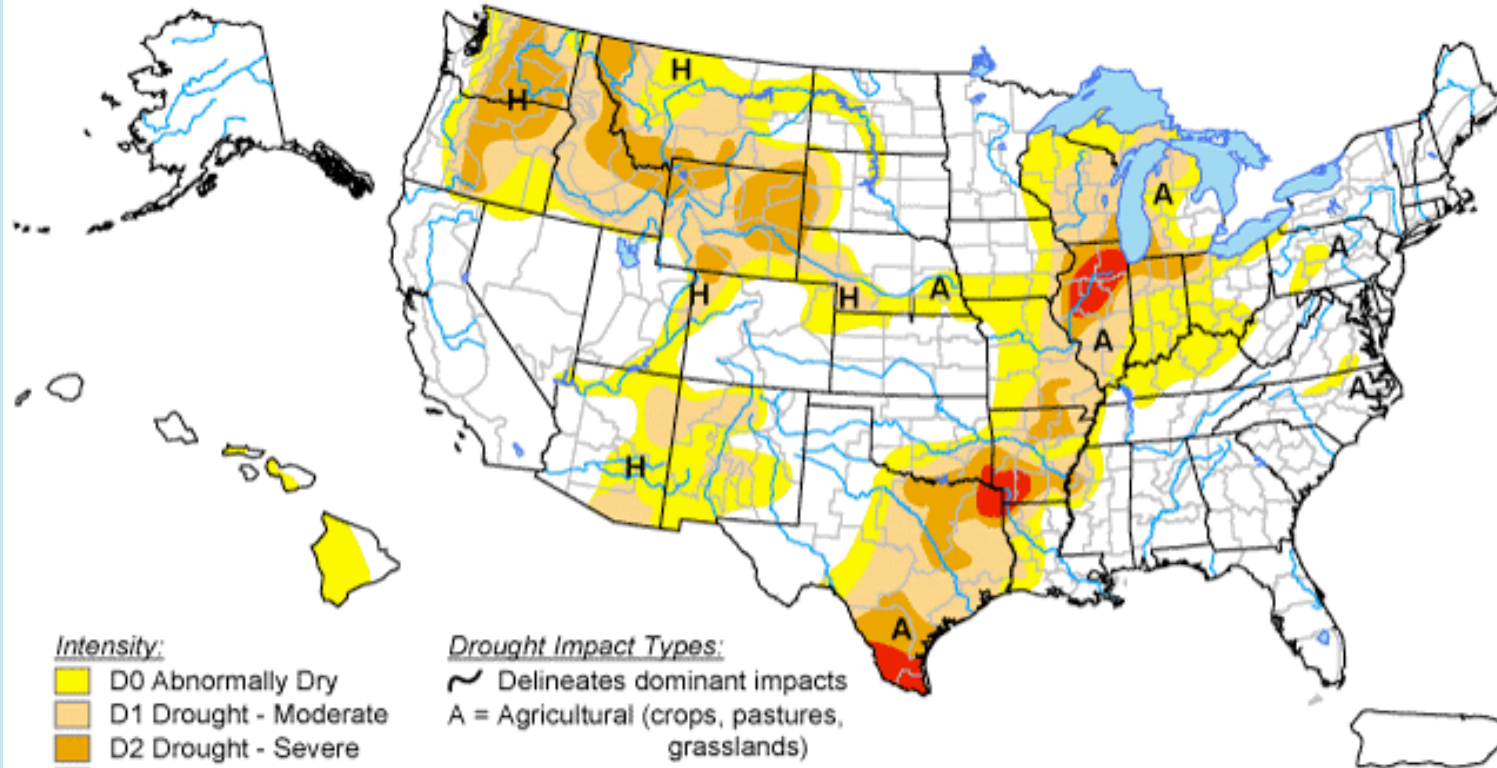
Human West Nile Virus Disease Cases by Week - Louisiana, 2005








October 27, 2005

U.S. Drought Monitor


July 12, 2005
Valid 8 a.m. EDT



Intensity:

-  D0 Abnormally Dry
-  D1 Drought - Moderate
-  D2 Drought - Severe
-  D3 Drought - Extreme
-  D4 Drought - Exceptional

Drought Impact Types:

-  Delineates dominant impacts
- A = Agricultural (crops, pastures, grasslands)
- H = Hydrological (water)
- (No type = Both impacts)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

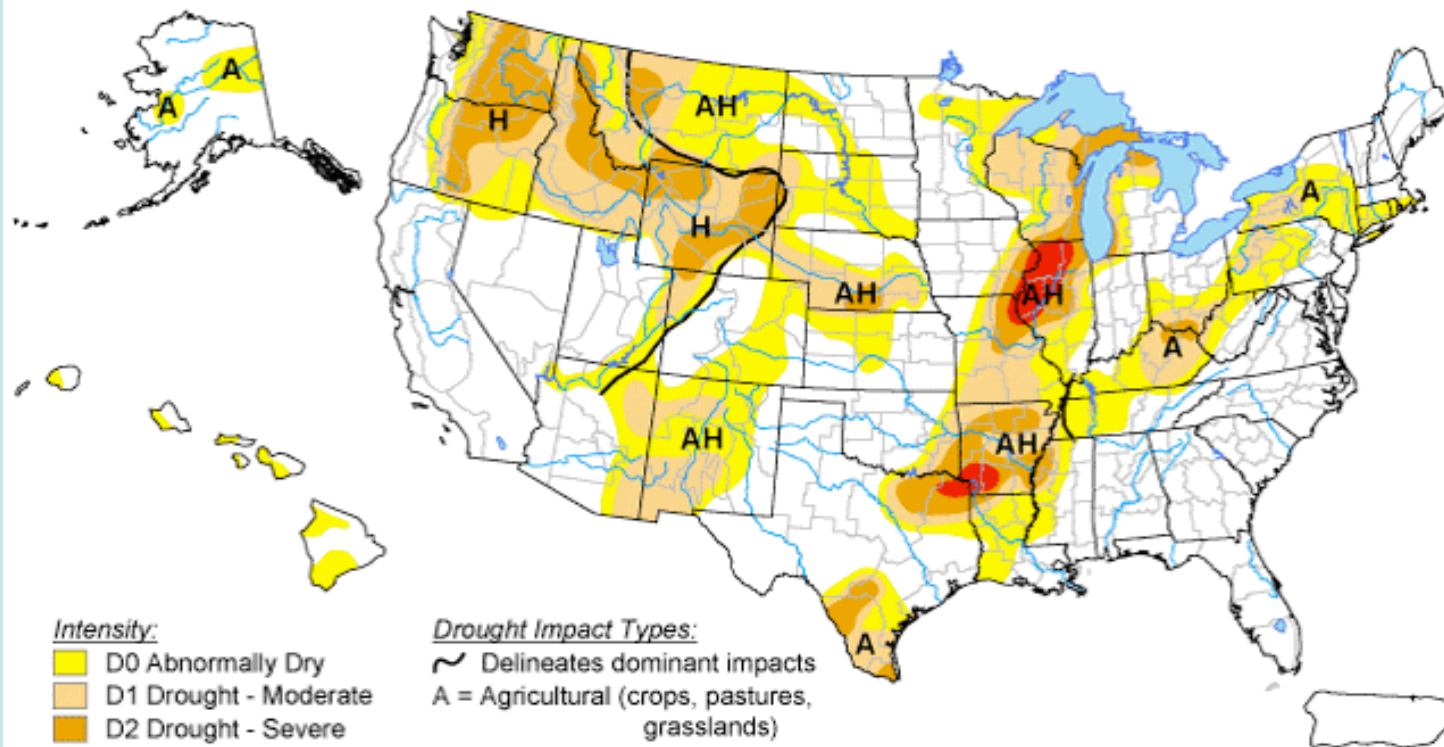
<http://drought.unl.edu/dm>



Released Thursday, July 14, 2005
Author: Richard Tinker, NOAA/NWS/NCEP/CPC

U.S. Drought Monitor

August 16, 2005
Valid 8 a.m. EDT



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

Drought Impact Types:

- Delineates dominant impacts
- A = Agricultural (crops, pastures, grasslands)
- H = Hydrological (water)
- (No type = Both impacts)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>



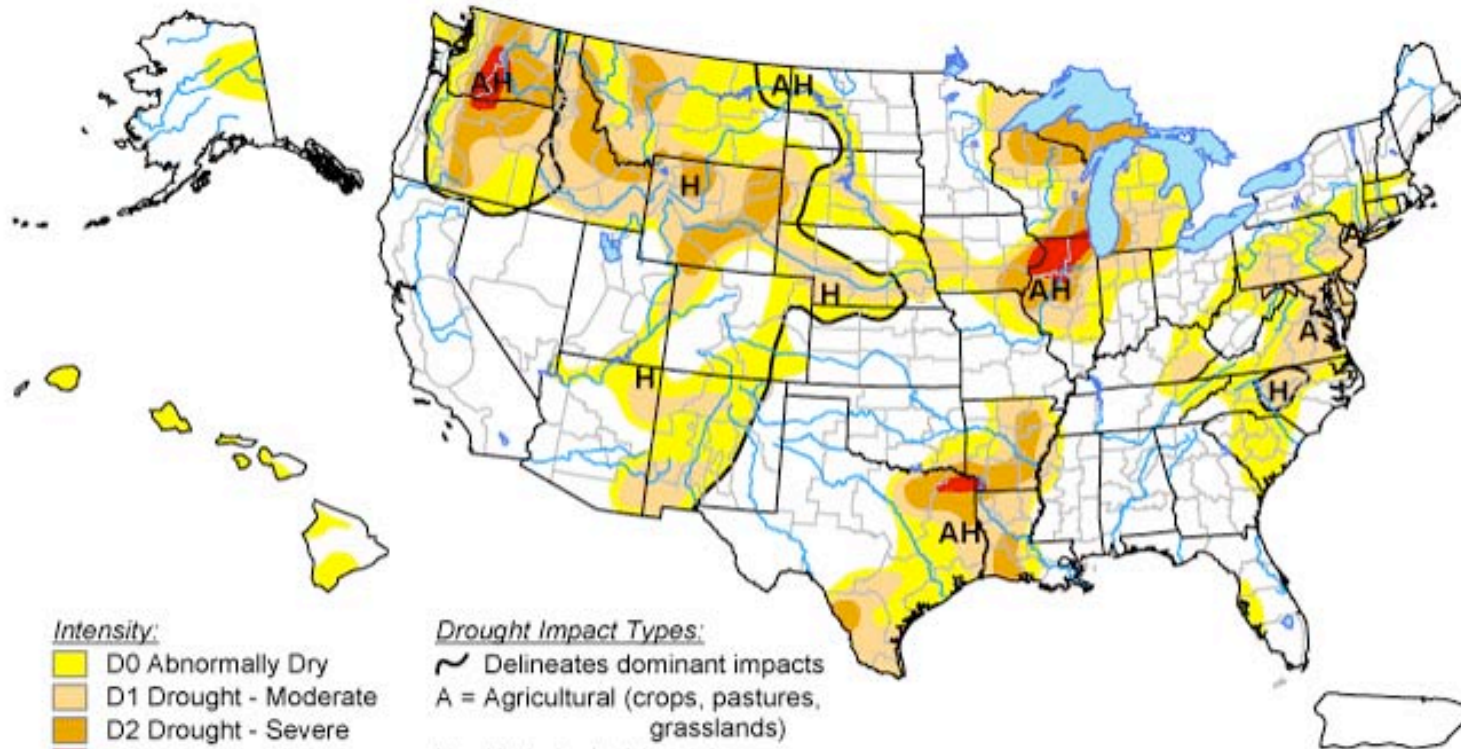
Released Thursday, August 18, 2005

Author: David Miskus, JAWF/CPC/NOAA






U.S. Drought Monitor

September 20, 2005


Valid 8 a.m. EDT



Intensity:

-  D0 Abnormally Dry
-  D1 Drought - Moderate
-  D2 Drought - Severe
-  D3 Drought - Extreme
-  D4 Drought - Exceptional

Drought Impact Types:

-  Delineates dominant impacts
- A = Agricultural (crops, pastures, grasslands)
- H = Hydrological (water)
- (No type = Both impacts)

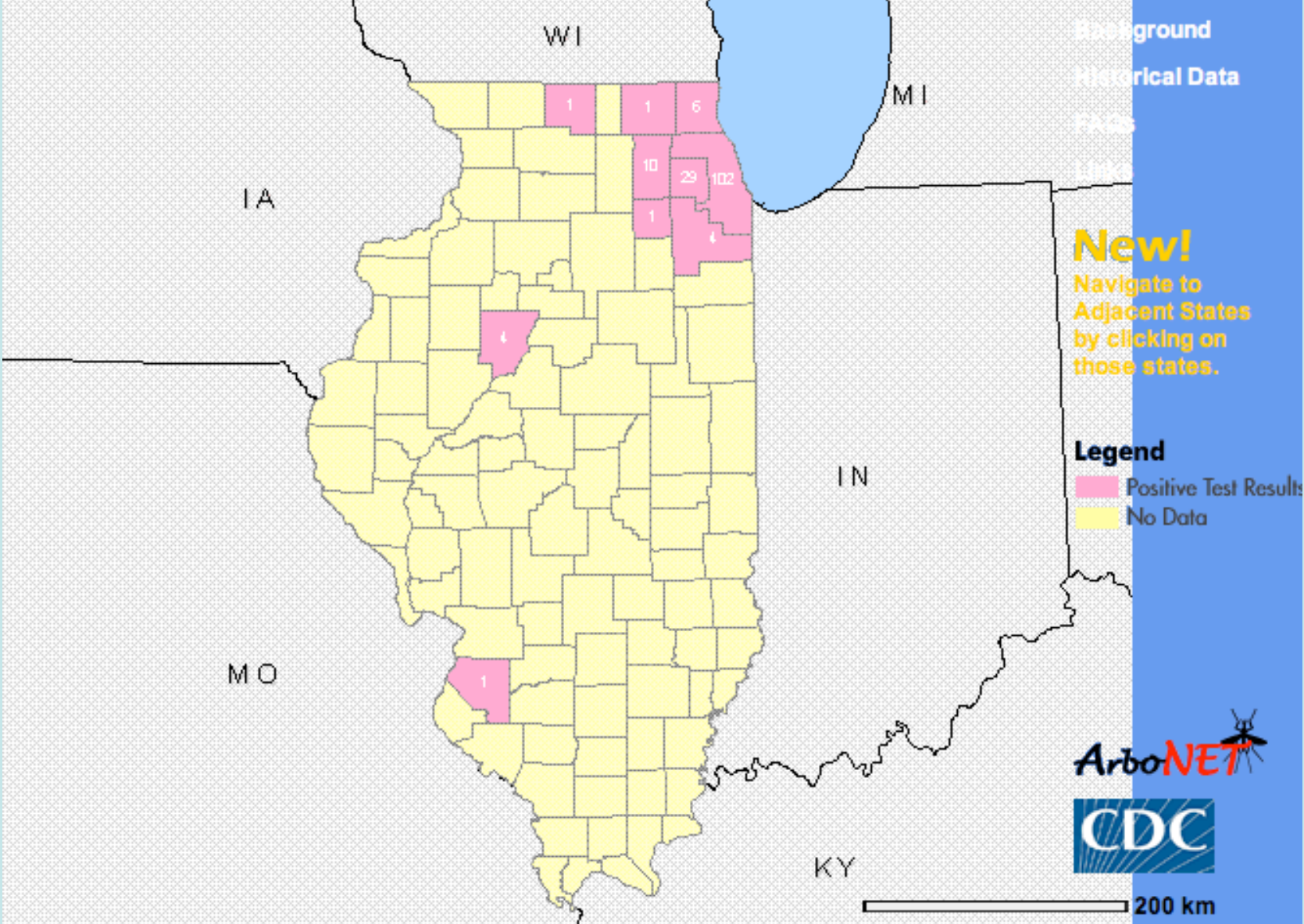
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>




Released Thursday, September 22, 2005

Author: Douglas Le Comte, CPC/NOAA



Cumulative 2005 Data as of 3 am, Sep 20, 2005



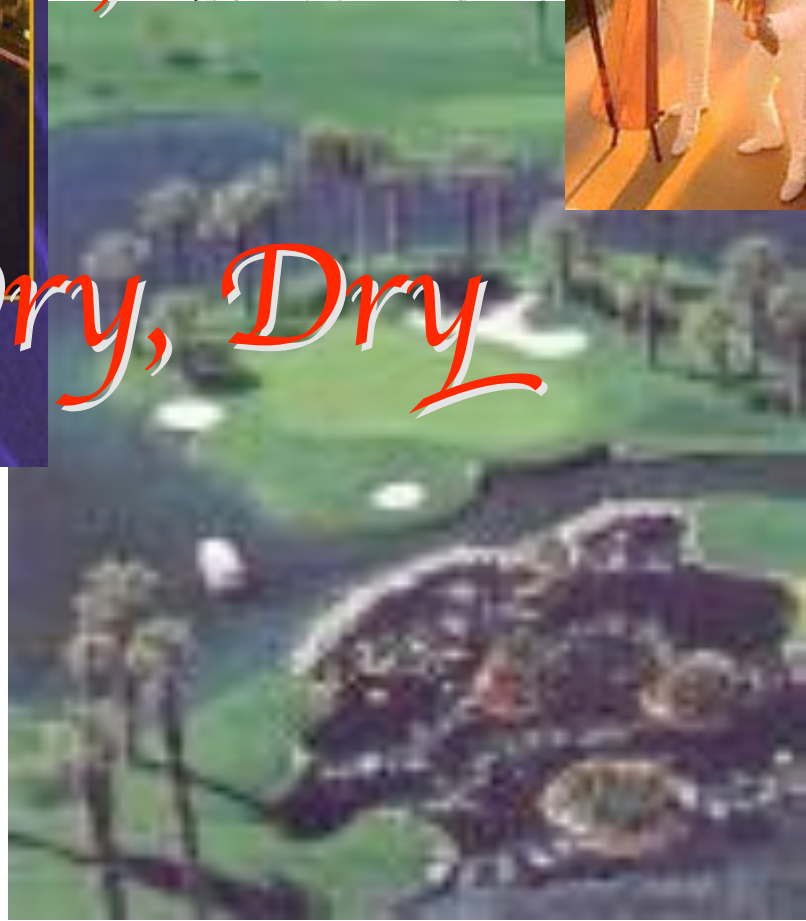
Hot, Hot, Hot

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MORE INFORMATION >>



Dry, Dry, Dry

Note in added proof

ProMed 2005 Oct 10th:

The outbreak of West Nile fever in the Astrakhan protection agency [Rospotrebnadzor], Natalia Nikeshina, stated that there had been a total of 73 cases of this arboviral infection in the region since the beginning of the year [2005]. 51 of the cases have been reported from the centre of the Astrakhan region. 3 of them have had fatal outcomes. **The peak of morbidity was recorded in September 2005, which this year was unusually hot in Astrakhan.**

