



West Nile virus (WNV) activity in humans and mosquitos - 2019

Updated to 09/12/2019

Following is a summary of human cases, animals and mosquitos positive for WNV by location since the beginning of 2019 until 09/12/2019.

Since the beginning of the year until 09/12/2019, 32 human cases of West Nile Fever (WNF) were reported in 27 localities. WNV infected animals were identified in 4 locations, and mosquitos infected with WNV were located in 34 locations throughout the country.



Morbidity in humans:

Since the beginning of the year until 09/12/2019, 32 human cases of West Nile Fever (WNF) were reported, of which 18 are suspected* and reside in 27 different localities (Table 1). The first case this year was reported from Yoqne'am Illit in February. An increase in the number of reported cases occurred in July (6 patients), August (7 patients), September (7 patients), October (9 patients) and November (2 patients). However, the number of reported cases in 2019 is significantly lower than the 2011-2018 mean during the same period (Graph 1). Human cases were mainly reported from the upper Galilee, the Hula Valley, along the Coastal Plain and the Shfela areas. The distribution of patients by reporting district was northern (6), Haifa (9), Central (7), Tel-Aviv (7) and Ashqelon (3).

Morbidity in animals:

Since the beginning of the year, four animals infected with WNV were identified in 4 locations. In the end of July, an *Acridotheres tristis* was identified in the Sharon. Three Horses were identified; one in mid-August in the Southern Golan Heights, one at the end of August, in the Gilboa; and at the beginning of September, in Jezreel Valley (Table 2).



Mosquitos positive for WNV:

Mosquitos positive for WNV have been identified in 34 locations through the country. In the middle of May, in the central Arava and in south-east Shomeron; In the middle of June, in the lower Galilee and southern Shomeron; At the end of July, in the Beit She'an Valley, the Shfela and in the central Arava; At the beginning of August, in Jezreel Valley; in the middle of August, in the Beit She'an Valley and at the end of August, in Jerusalem and the Beit She'an Valley; and in September, in the lower Galilee, Judaeen Hills, Hula Valley and Jordan Valley (Table 3).

As with every period of WNV activity, enhanced nationwide monitoring of WNV in mosquitos is especially important for further assess the potential for WNV transmission, to increase mosquito control efforts in areas of increased virus detection; and to increase public awareness in these areas of the importance of personal protective measures to prevent mosquito bites.

* In this report, a human case patient who is defined as "suspected" refers to a patient whose lab test results indicate a possibility of infection with WNV, and a human case patient who is defined as "confirmed" refers to a patient whose lab test results show definite infection with WNV. The final definition status of a case patient who initially was diagnosed as suspected may be changed to confirmed due to additional lab test results that were obtained over time.



Table 1: Positive test results for WNV in humans by location:

Locality No.	Locality	Date sample received in lab	Diagnostic status according to lab	Chamber
1	Or Aqiva	07/10/2019	Confirmed	Hadera
2	Aniam	05/08/2019	Suspected	Kinneret
3	Basmat Tab'un	06/10/2019	Suspected	Kinneret
4	Gadot	16/07/2019	Confirmed	Zefat
5	Herzliyya	16/09/2019	Confirmed	Tel aviv
		24/09/2019	Confirmed	
6	Zikhron Ya'qov	27/08/2019	Confirmed	Hadera
7	Hadera	07/08/2019	Confirmed	Hadera
8	Holon	16/07/2019	Suspected	Tel aviv
9	Haifa	30/10/2019	Confirmed	Haifa
10	Tur'an	22/08/2019	Suspected	Nazareth
11	Yoqne'am Illit	21/02/2019	Suspected	Afula
12	Kefar Sava	16/07/2019	Suspected	Petah-tiqwa
13	Lod	16/08/2019	Suspected	Ramla
		08/10/2019	Confirmed	
14	Nir Zevi	05/11/2019	Suspected	Ramla
15	Nesher	15/10/2019	Confirmed	Haifa
16	Petah Tiqwa	12/09/2019	Suspected	Petah-tiqwa



Table 1: Positive test results for WNV in humans by location - continued:

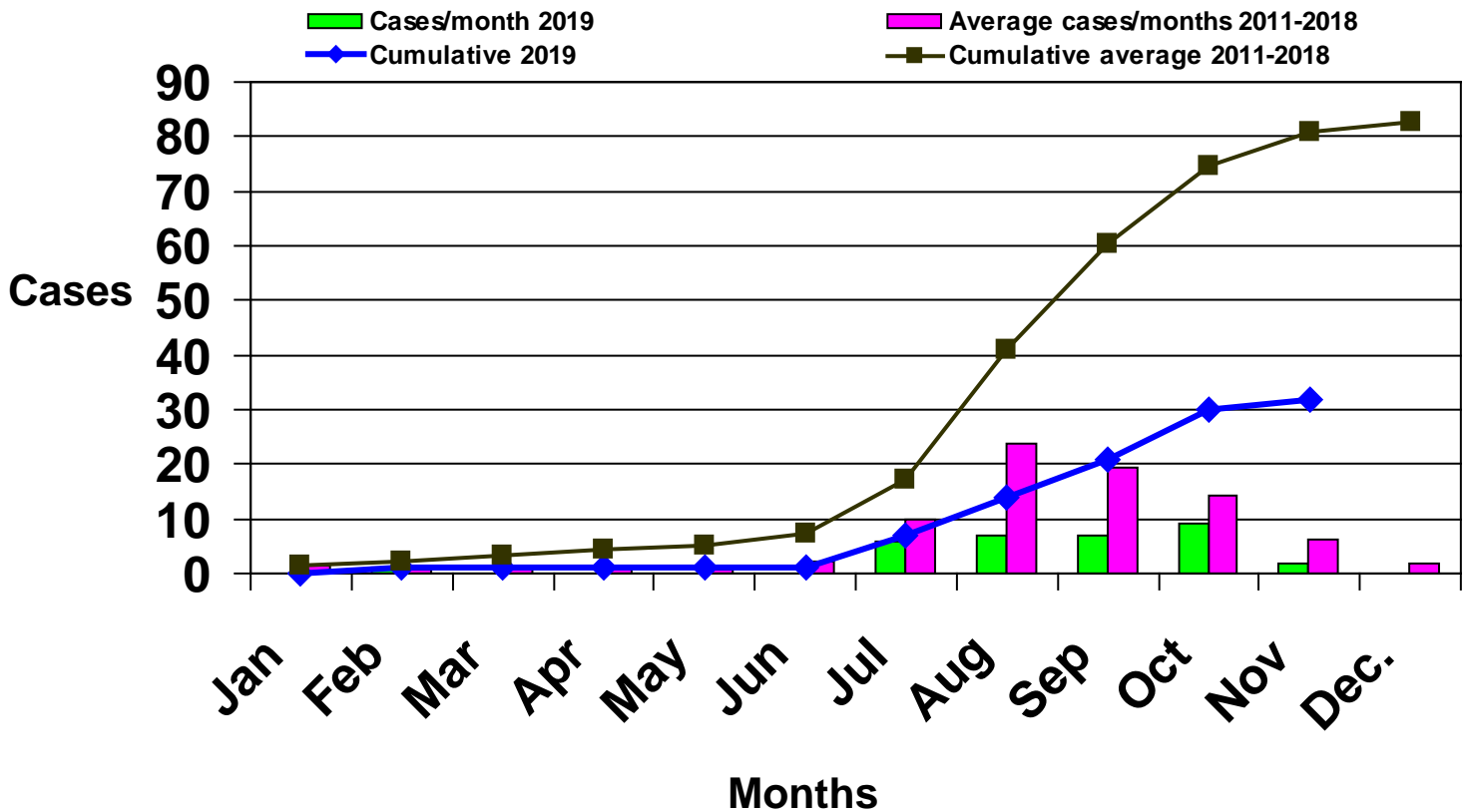
Locality No.	Locality	Date sample received in lab	Diagnostic status according to lab	Chamber
17	Qadima-Zoran	11/11/2019	Confirmed	Natanya
18	Qesaryya	22/08/2019	Suspected	Hadera
19	Qazrin	05/09/2019	Suspected	Zefat
20	Qiryat Gat	29/07/2019	Suspected	Ashqelon
21	Qiryat Ono	09/09/2019	Confirmed	Tel aviv
		15/10/2019	Suspected	
22	Qiryat Bialik	22/09/2019	Confirmed	Haifa
23	Rosh Haayin	27/08/2019	Suspected	Petah-tiqwa
24	Ramat Gan	23/07/2019	Suspected	Tel aviv
25	Sederot	15/10/2019	Suspected	Ashqelon
26	Tel Aviv - Yafo	24/10/2019	Suspected	Tel aviv
27	Talme Yafe	06/10/2019	Confirmed	Ashqelon



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2019 West Nile Virus (WNV) Morbidity graph in Israel in comparison to the average morbidity in 2011-18 (updated 09.12.19)





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Table 2: Positive WNV in animals and birds by location:

No.	Animal	Location	Date sample received in lab	District
1	<i>Acridotheres tristis</i>	Sede Hemed	22/07/2019	Central
2	Horse	Eli-Ad	14/08/2019	Northern
3	Horse	Na'ura	31/08/2019	Northern
4	Horse	Nazareth	02/09/2019	Northern



Table 3: Positive test results for WNV in mosquitoes by place of capture:

Locality No	Location	Date sample received in lab	District
1	Iddan filters	13/05/2019	Southern
2	Bet Arye	15/05/2019	Central
3	Yodefat and Karmi'el	17/06/2019	Northern
4	Kefar Tappuah south retaining wall	26/06/2019	Central
5	Sheluhot plowed	23/07/2019	Northern
6	Newe Etan discus tomatoes	23/07/2019	Northern
7	Newe Etan plowed	23/07/2019	Northern
8	Soreq stream road 3	24/07/2019	Central
9	Hazeva -overflow B.H.	29/07/2019	Southern
10	Hazeva -overflow B.H.	29/07/2019	Southern
11	Hazeva -overflow B.H.	29/07/2019	Southern
12	Zvi stream - Ramat Dawid	06/08/2019	Northern
13	Zvi stream - Ramat Dawid	08/08/2019	Northern
14	Maoz Hayyim - natural plow	15/08/2019	Northern
15	Sheluhot - brevity	15/08/2019	Northern
16	Maoz Hayyim - alfalfa1	15/08/2019	Northern
17	Maoz Hayyim - brevity2	15/08/2019	Northern
18	Hypo1 - brevity	22/08/2019	Northern
19	Pisgat Zeev Neve Yaakov Prat Stream	22/08/2019	Jerusalem



Table 3: Positive test results for WNV in mosquitoes by place of capture - continued:

Locality No	Location	Date sample received in lab	District
20	Maoz Hayyim - natural plow	22/08/2019	Northern
21	Soreq stream	27/08/2019	Jerusalem
22	Eqron stream - Mazkeret Batya brige Shaul street	28/08/2019	Central
23	Eqron stream - Mazkeret Batya brige Shaul street	28/08/2019	Central
24	Oxidation pools in Mishmar Dawid	28/08/2019	Central
25	Agricultural Education 4	28/08/2019	Central
26	Tel Yizhaq	28/08/2019	Central
27	East of road 2 railroad tracks	28/08/2019	Central
28	Meged kramim drilling - Hilazon stream west of Shorashim Bridge	01/09/2019	Central
29	Qedar	01/09/2019	Jerusalem
30	Agamon hula	03/09/2019	Northern
31	Agamon hula	03/09/2019	Northern
32	Kefar Tavor canal and wastewater treatment plant	11/09/2019	Northern
33	Palm trees at the entrance to Gilgal	15/09/2019	Central
34	Kedem Arava (Bet Haarava)	18/09/2019	Jerusalem

Geographic distribution of new human cases of WNF and WNV infections in mosquitos, animals and birds

Updated to 09/12/2019

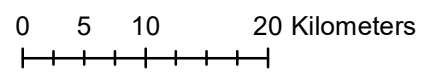
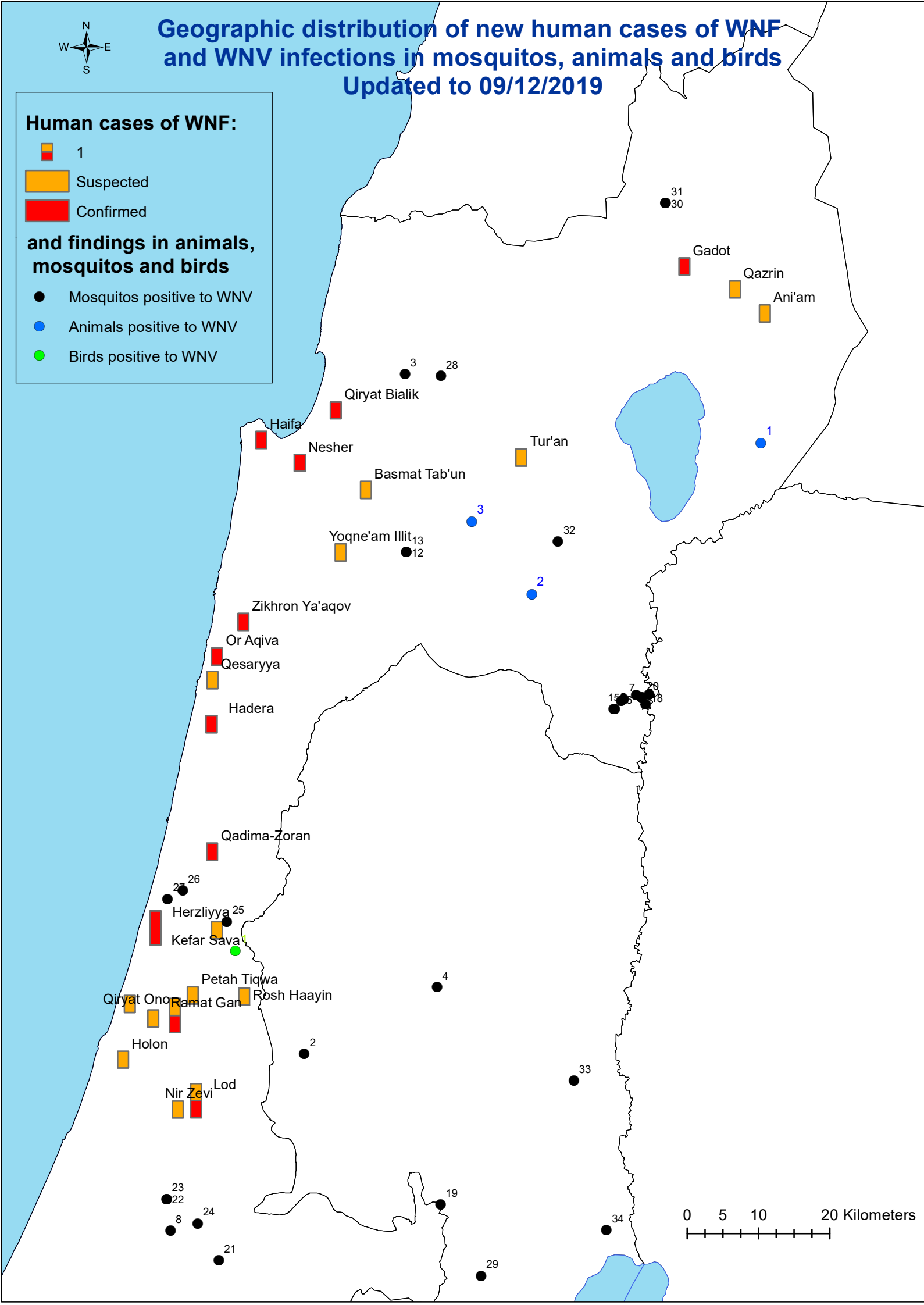


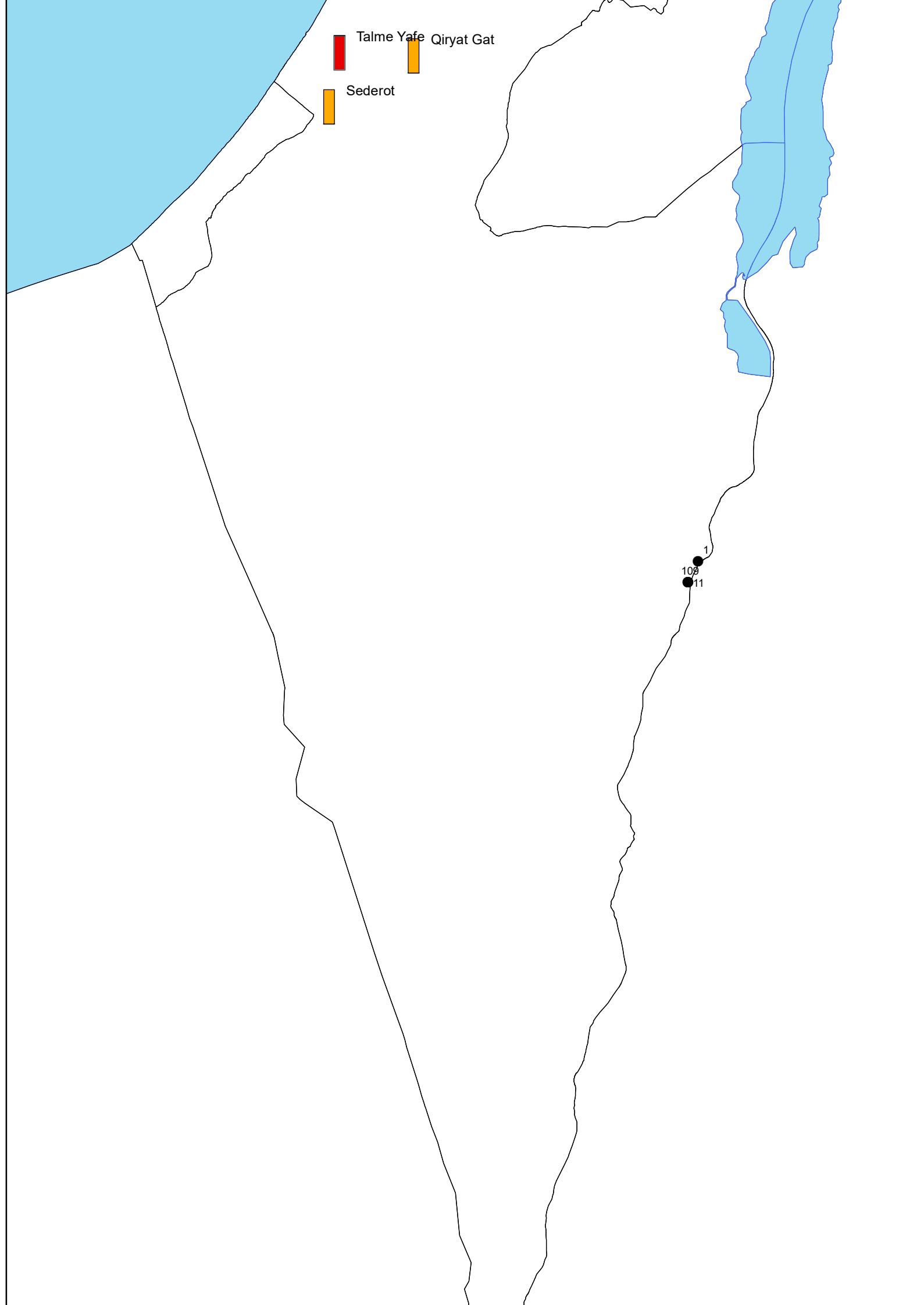
Human cases of WNF:

- 1
- Suspected
- Confirmed

and findings in animals, mosquitos and birds

- Mosquitos positive to WNV
- Animals positive to WNV
- Birds positive to WNV





Talme Yafe Qiryat Gat



Sederot

1
10
11



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Participants in preparation of the current report:

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Data on animals infected by WNV obtained from the Qimron Veterinary Institute, the Department of Virology and the Poultry Diseases Division. Wild birds are collected by the Nature and Parks Authority and the Wildlife Hospital at the Safari.

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