



NEW YORK CITY DEPARTMENT OF
HEALTH AND MENTAL HYGIENE
Ashwin Vasani, MD, PhD
Commissioner

2023 Veterinary Advisory # 2: 2022 Summary of Animal Rabies in New York City

- In 2022, 38 animals from New York City tested positive for rabies; 30 raccoons, 3 skunks, 3 cats and 2 bats
- Queens had the most rabid animals with a record high number of 16 raccoons and 1 cat; no rabid animals were reported from Manhattan
- The annual raccoon oral rabies vaccination (ORV) program was conducted in September, with supplemental ORV baiting completed in Queens in October
- Visit our [Zoonotic and Vector-borne Diseases: Information for Veterinarians](#) and [Rabies](#) webpages for more information

Please share with your colleagues in Veterinary Medicine and your staff

April 10, 2023

Dear Veterinary Colleagues,

This advisory is a summary of New York City (NYC) animal rabies testing data for year 2022. The most up-to-date rabies information is on NYC Department of Health and Mental Hygiene (NYC Health Department)'s [website](#).

In 2022, 38 animals in NYC tested positive for rabies at the NYC Public Health Laboratory or New York State Wadsworth Center: 9 raccoons, 3 skunks and 1 cat in the Bronx; 2 raccoons in Brooklyn; 16 raccoons and 1 cat in Queens; and 3 raccoons, 2 bats and 1 cat in Staten Island. There were no rabid animals from Manhattan. All three rabid cats were stray or feral.

Rabid raccoons pose the greatest risk of rabies for pets and other domestic animals. However, typically more people receive rabies post-exposure prophylaxis (rPEP) due to an exposure to a rabid cat; people are more likely to rescue a sick cat and rabid raccoons are rarely aggressive or attempt to bite a person unless they are being handled. Nine people received rPEP following exposure to a rabid NYC animal: 4 people exposed to rabid cats and 5 exposed to a single rabid bat. Two dogs were placed under quarantine, one following exposure to a rabid raccoon and the other to a rabid bat.

A record number 16 rabid raccoons were detected in Queens, along with 2 raccoons in Brooklyn near the Queens border. The raccoons were [clustered](#) in two areas, a contiguous green space of connected parks and cemeteries in central Queens, and Alley Pond Park. Routine [raccoon oral rabies vaccine \(ORV\) baiting](#) was conducted in September 2022 with additional ORV baiting completed in October in and around the clusters in Queens. Historically, there were three or fewer rabid raccoons detected in Queens per year (three in 2021).

Although all mammals are susceptible to rabies virus infection, there are species-specific variants of the virus that have adapted to certain species that serve as rabies virus reservoirs. These variants are transmitted primarily between members of the same species and, with the exception of bats, occur in geographically distinct regions. Raccoons are the primary rabies reservoir species in NYC and along the Atlantic Coast. Occasionally, rabid raccoons transmit the virus to other mammals; in NYC skunks and stray cats are most often affected. Rabid raccoons pose the greatest risk of rabies for pets and other domestic animals. Rabid bats have also been found in all 5 boroughs but in much smaller numbers than terrestrial animals. Bats are the primary vector of human rabies infections in the U.S.

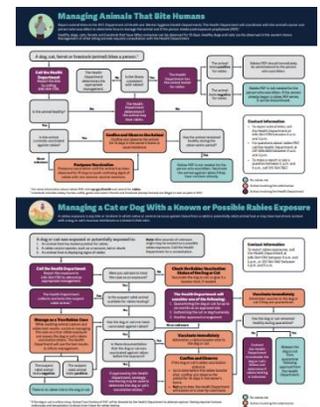
Dogs and cats are required to maintain vaccination against rabies. Indoor pets can be at risk for rabies if they escape outside or if a rabid bat enters the home. No rabid dogs have been reported in NYC since 1954; though dogs infected with the raccoon variant have been reported in areas neighboring NYC. Since 1992, 29 cats have tested positive for rabies, including 3 in 2022; almost all were strays. In 2022, variant PCR testing showed a cat from Staten Island was infected with raccoon variant rabies virus.

Consider rabies for any animal presenting with a progressive neurologic illness, especially in a stray animal, an animal with a bite wound of unknown origin or exposure to a potentially rabid animal, or a dog from a country where the [canine rabies](#) variant is present.

Management guidelines for dogs and cats with a known exposure to a rabies vector species or any rabid animal (see [flowchart](#) online for details)

Upon consultation with the Veterinary Public Health Services' (VPHS) Animal Bite Unit (ABU), cases will be assessed on an individual basis and options may include:

- If never vaccinated against rabies
 - Quarantine in veterinary facility for up to 6 months at owner's expense or euthanize
- If currently vaccinated against rabies
 - Immediately give booster vaccine. Confine and observe in owner's home for 45 days
- If not currently vaccinated
 - Managed on case-by-case basis



Veterinary Flowcharts (nyc.gov)

Management guidelines for healthy dogs and cats that have bitten a person (see [flowchart](#) online for details)

- Confine and observe dog or cat for 10 days
 - If animal is not currently vaccinated, do not vaccinate until end of the 10-day observation period
 - If animal remains healthy, rabies post-exposure prophylaxis not indicated for bite victim
 - If animal becomes ill, must be evaluated by veterinarian and the Animal Bite Unit

What All Veterinarians Can Do

- **Educate** clients to:
 - Avoid contact with wild and stray animals
 - Make sure their dog or cat is up to date on its rabies vaccinations
 - Avoid leaving their pets outdoors unattended and feed them indoors
 - Avoid trying to separate animals that are fighting
 - Contact their veterinarian if their pet has been in contact with a raccoon, skunk, bat or any animal that might be rabid

- **Report** animal bites and suspect animal rabies cases to the NYC Health Department's Veterinary Public Health Services (VPHS) Animal Bite Unit

During business hours	VPHS Animal Bite Unit (ABU)	646-364-1799
Outside business hours	NYC Poison Control Center	212-POISONS (212-764-7667)

- **Questions?** Call the NYC Health Department

Questions on rabies exposures in pets, animal bites, and other animal-related issues	Veterinary Public Health Services	646-364-1783
Questions on rabies exposures in people, PEP, and other human-related rabies issues	Bureau of Communicable Disease	347-396-2600
After business hours	NYC Poison Control Center	212-764-7667

As always, we greatly appreciate your partnership and cooperation.

Sally Slavinski, DVM, MPH, DACVPM
Zoonotic and Vector Borne Disease
Bureau of Communicable Disease

Asha Abdool, MPH
Zoonotic and Vector Borne Disease
Bureau of Communicable Disease

Norma S. Torres, Director
Veterinary Public Health Services
Division of Environmental Health

Table 1. 2022 NYC Animal Rabies Testing*

SPECIES	BRONX		BROOKLYN		MANHATTAN		QUEENS		STATEN ISLAND		TOTAL NYC	
	# tested	# positive	# tested	# positive	# tested	# positive	# tested	# positive	# tested	# positive	# tested	# positive
Bat	3	0	5	0	7	0	1	0	6	2	22	2
Cat	14	1	22	0	15	0	25	1	12	1	88	3
Dog	7	0	3	0	9	0	5	0	0	0	24	0
Groundhog	0	0	0	0	0	0	2	0	0	0	2	0
Opossum	3	0	2	0	0	0	7	0	5	0	17	0
Raccoon	29	9	110	2	19	0	87	16	12	3	257	30
Skunk	11	3	1	0	1	0	3	0	2	0	18	3
Other**	8	0	9	0	7	0	2	0	3	0	29	0
Total	75	13	152	2	58	0	132	17	40	6	457	38

*Tested at NYC DOHMH Public Health Lab (n=419) or NYS Wadsworth Center (n=38).

**Other includes 14 rats, 8 squirrels, 2 chipmunks, and 1 each chinchilla, fox, mouse, rabbit, and sheep

Table 2. NYC Laboratory-Confirmed Rabid Animals, 1992-2022

SPECIES	BRONX	BROOKLYN	MANHATTAN	QUEENS	STATEN ISLAND	TOTAL POSITIVE	TOTAL TESTED	PERCENT POSITIVE
Raccoon	231	12	157	33	219	652	8779	7.4
Skunk	56	0	1	0	6	63	436	14.4
Bat	15	7	14	4	9	49	1297	3.8
Cat	10	1	2	2	14	29	3910	0.7
Dog	0	0	0	0	0	0	2208	0
Opossum	2	1	0	1	3	7	738	0.9
Other*	2	0	0	0	1	3	1903	0.2
Total	316	21	174	40	252	803	19270	4.2

*Other includes 2 coyotes (1999 and 2010, Bronx) and 1 groundhog (2007, Staten Island).

Table 3. NYC Animal Rabies Testing by Year and Species, 2018-2022

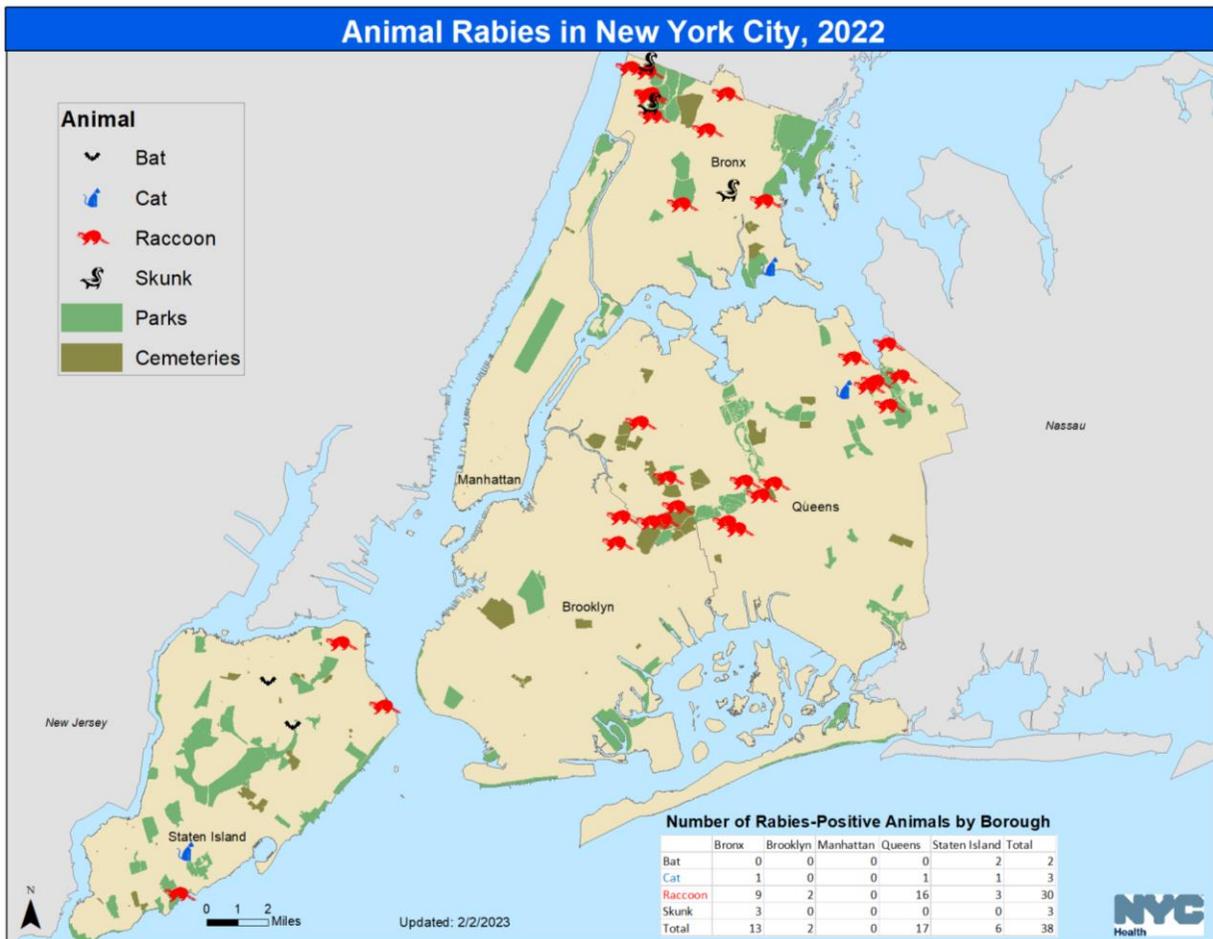
ANIMAL	2018		2019		2020		2021		2022	
	# tested	# positive								
Bat	24	0	38	1	38	1	18	0	22	2
Cat	137	1	140	1	83	5	70	3	88	3
Dog	39	0	43	0	25	0	30	0	24	0
Deer	2	0	0	0	0	0	1	0	0	0
Groundhog	2	0	5	0	2	0	7	0	2	0
Opossum	19	1	23	0	19	0	26	0	17	0
Rabbit	0	0	1	0	1	0	0	0	1	0
Raccoon	333	10	424	21	252	28	224	15	257	30
Skunk	23	2	25	1	21	4	6	1	18	3
Squirrel	7	0	13	0	7	0	11	0	8	0
Other**	11	0	5	0	6	0	15	0	20	0
Total	597	14	717	24	454	38	408	19	457	38

**Other includes 27 rats, 15 mice, 4 chipmunks, 3 shrews, 2 ferrets, 1 each bear, beaver, fox, goat, gopher, horse, and lesser kudu

Table 4. NYC Animal Rabies Testing by Year and County, 2018-2022

COUNTY	2018		2019		2020		2021		2022	
	# tested	# positive								
BRONX	107	9	83	3	76	14	45	4	75	13
BROOKLYN	126	0	167	0	69	1	60	0	152	2
MANHATTAN	164	0	122	11	61	2	68	1	58	0
QUEENS	147	1	233	0	153	3	180	3	132	17
STATEN ISLAND	53	4	112	10	95	18	55	11	40	6
Total	597	14	717	24	454	38	408	19	457	38

Numbers may differ slightly from previous tables due to further review of historical data.



Visit the NYC Health Department's webpage for information and resources for veterinarians: [Zoonotic and Vector-borne Diseases: Information for Providers](#)

If you do not receive these alerts via email and would like to be added to the distribution list, please email zivdu@health.nyc.gov

Report animal diseases to the NYC Department of Health

- Submit online through a [secure web-based reporting platform](#)
- Call 347-396-2600
- Fax the [Animal Disease Case Report form](#) to 347-396-2753

Report upon suspicion: Anthrax, brucellosis, glanders, influenza (novel with pandemic potential), monkeypox, plague, Q fever, rabies, SARS, tularemia

Report upon laboratory diagnosis: Arboviral encephalitides, leptospirosis, psittacosis, Rocky Mountain spotted fever, salmonellosis, tuberculosis

Report within 24 hours any outbreak or suspected outbreak of any disease, condition, or syndrome, of known or unknown etiology, which may pose a danger to public health.