

## Rabies

Rabies is an acute infection of the central nervous system caused by a neurotropic rhabdovirus of the genus *Lyssavirus*. All mammals, including humans, are susceptible to rabies. In humans, rabies causes a rapidly progressive and fatal encephalomyelitis. The incubation period in humans is usually 2–12 weeks, but there have been documented incubation periods as long as seven years. Bites from infected animals constitute the primary route of transmission. Transplanted organs, including corneas from patients with undiagnosed rabies, have also caused infection in recipients.

The Pacific Northwest is considered to be free of terrestrial rabies. In Oregon, the main reservoir of rabies is bats. Mammals like foxes and cats may come in contact with rabid bats, acquire the infection, and be capable of transmitting it to humans. Since 2000, 9% of the bats tested in Oregon have been positive for rabies. This, of course, is not a random sample of Oregon's bats; rather it represents bats that were neurologically impaired enough to have bitten humans or their pets, and then to have been captured. Any contact between a bat and a human should be evaluated carefully and immediately. All potential human exposures should result in a call to a local public health department office. Testing of an exposing mammal involves killing the animal, removing the head, and sending it to a laboratory for special staining and microscopic examination of brain tissue. The Oregon State Public Health Laboratory

will test mammals involved in bona-fide human exposures at no cost to the patient; and (for a fee) the Oregon State University's Veterinary Diagnostic Laboratory will test mammals involved in other exposures.

Seven bats, two foxes and one coyote tested positive in 2013. All foxes were residents of Josephine County and the coyote was from Baker County.

Rabies in humans is 100% preventable through prompt appropriate medical care, beginning with thorough cleaning of the wound. Persons not previously immunized for rabies, who are exposed to a rabid animal, should be given human rabies immune globulin (HRIG), with as much as possible infiltrated into and around the bite wound(s), and the rest administered intramuscularly; and four doses of rabies vaccine, one each on days 0, 3, 7 and 14. Before 2008, a five-dose vaccine regimen was recommended. However, review of serologic and case data indicated that four doses of vaccination in combination with HRIG elicited a protective immune response and that a fifth dose of vaccine provided no additional benefit.

Though bats are the reservoir in Oregon, canine rabies still accounts for most human rabies cases worldwide. Travelers to rabies-enzootic countries should be warned to seek immediate medical care if they are bitten by any mammal.

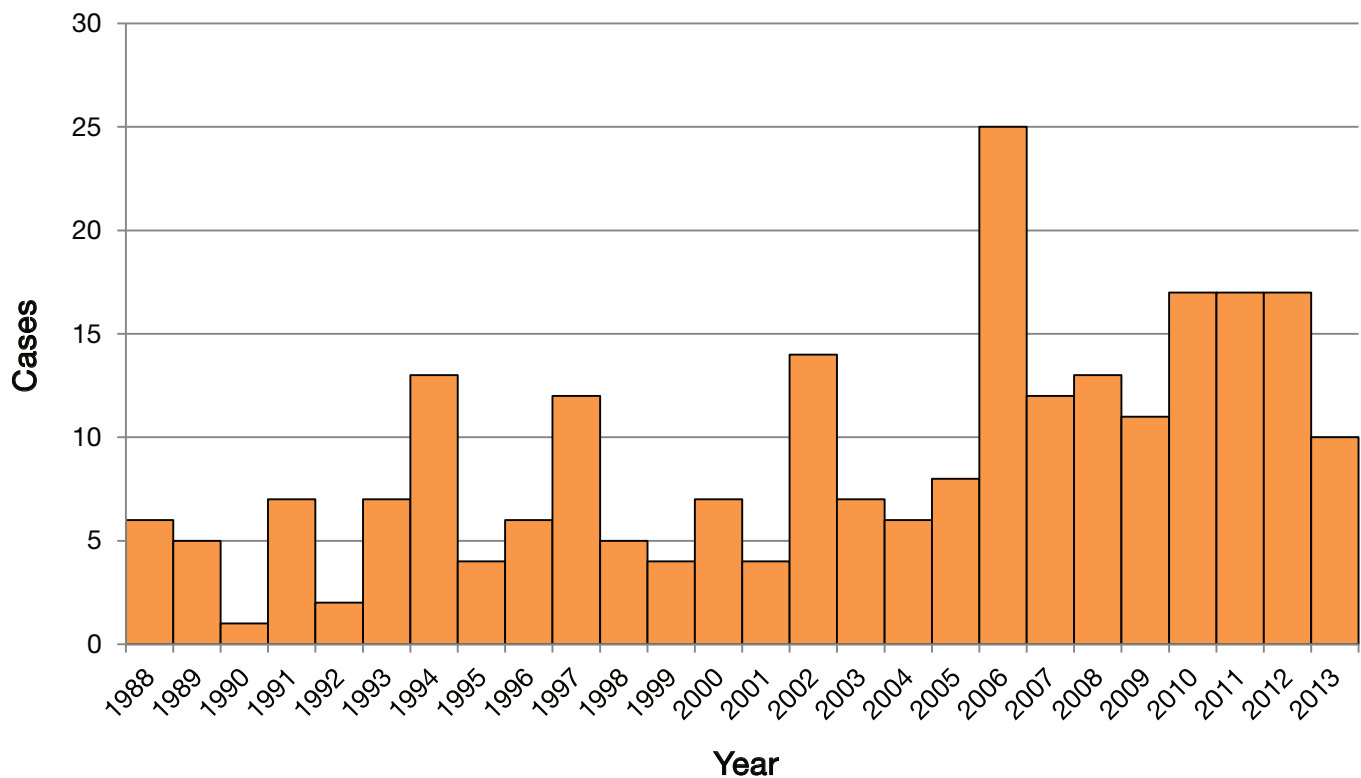
Additional information and an algorithm to follow for assessment of rabies risk are provided here.

## Rabies testing, Oregon, 2000–2013 (number of positive/total tested)

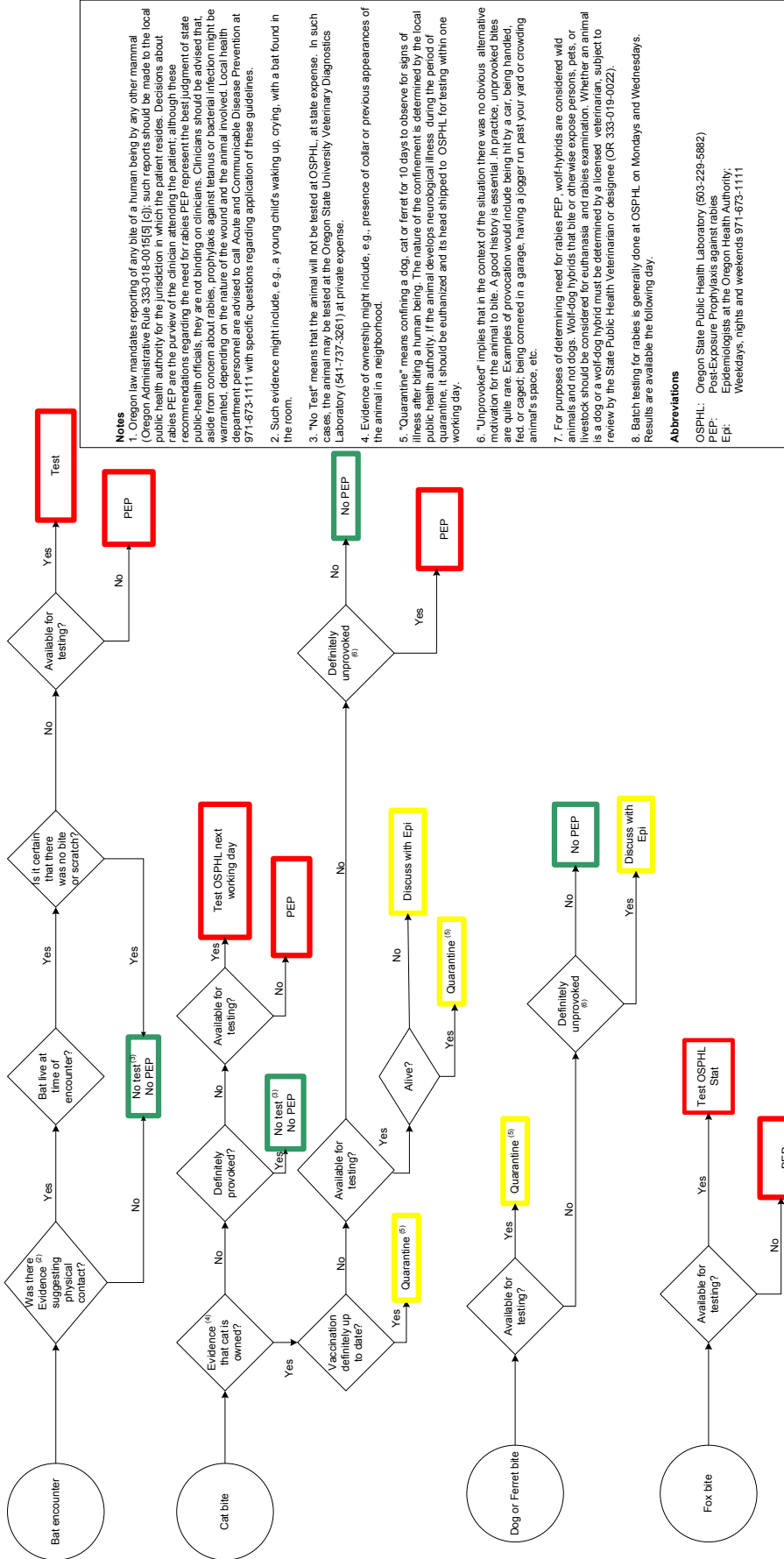
Year	Bat	Cat	Dog	Fox	Other
2000	8/73	0/79	0/56	1/4	0/4
2001	4/59	0/67	0/46	0/1	0/41
2002	12/134	0/102	0/27	2/4	0/29
2003	6/61	0/75	0/36	1/5	0/39
2004	7/88	0/105	0/42	0/2	0/27
2005	8/83	0/100	0/48	0/1	0/23
2006	23/126	0/72	0/26	2/4	0/41
2007	12/153	0/80	0/33	0/1	0/26
2008	13/128	0/58	0/23	0/3	0/53
2009	11/117	0/73	0/27	0/1	0/42
2010	10/104	0/67	0/41	6/15	1/48 (goat)
2011	11/143	0/84	0/32	5/44	1**/61 (coyote)
2012	14/203	0/79	0/37	3**/28	0/45
2013	7/193	0/90	0/36	2/34	1/53 (coyote)
<b>Totals 2000–2013</b>	<b>146/1,665 8.7%</b>	<b>0/131</b>	<b>0/510</b>	<b>22/147 14.9%</b>	<b>3/532 (0.56%)</b>

\*\* enhanced surveillance due to positive goat and foxes in 2010–2012

## Animal rabies by year: Oregon, 2008–2013

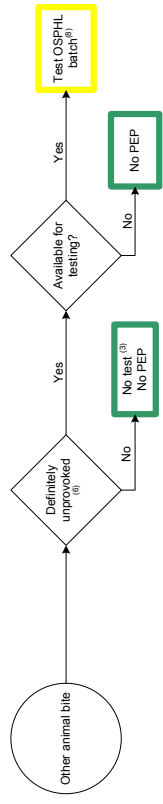


Algorithm for Prevention of Rabies After Animal Encounters in Oregon (1)

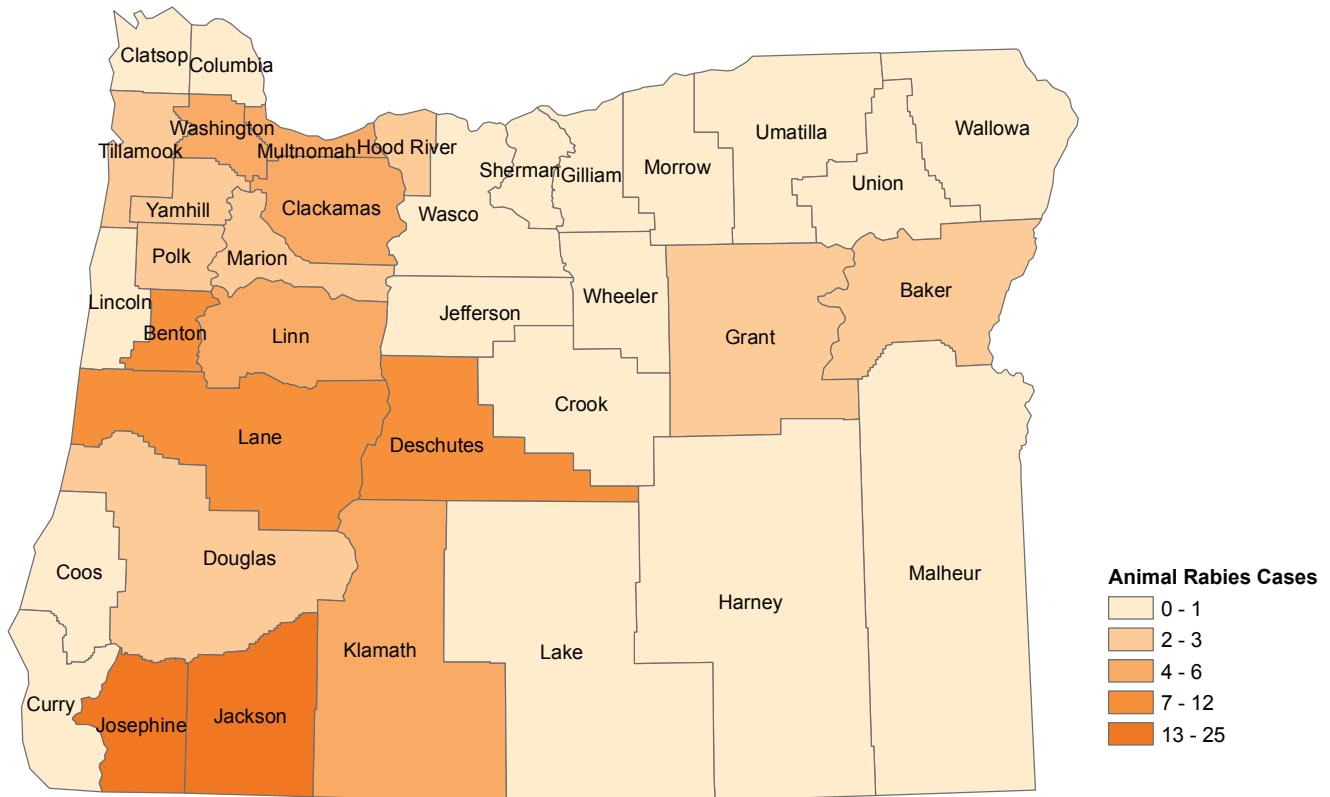


Rabies testing, Oregon 2000-2012

Animal	Positive	Tested	% Positive
Bat	139	1472	9.4%
Cat	0	1041	0
Dog	0	474	0
Fox	20	113	17.7%



## Animal rabies cases by county: Oregon, 2004–2013

**Prevention:**

- Keep rabies vaccinations up to date for all pet cats, ferrets and dogs.
- Maintain control of pets by keeping cats and ferrets indoors and keeping dogs under direct supervision.
- Spay or neuter pets to help reduce the number of unwanted pets that may not be properly cared for or vaccinated regularly.
- Call animal control to remove stray animals from your neighborhood, because these animals may be unvaccinated or ill.
- Do not handle wildlife, especially bats and foxes.