



2013 Iowa Rabies Summary

ANIMAL RABIES IN IOWA:

In 2013, 12 cases of animal rabies were reported in Iowa, which is a significant decrease from 2012 (see the Table 1 below). Rabies was identified most frequently in wildlife species including 6 bats and 4 skunks. Two cases were diagnosed in cows.

Table 1: Positive Rabies Cases 2003-2013

Species	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total
Bat	47	47	60	28	13	11	11	10	12	17	6	262
Skunk	38	28	33	13	5	7	13	13	7	9	4	170
Cat	8	11	5	7	7	9	3	1	3	1	0	55
Cow	3	10	7	4	0	1	5	1	3	4	2	40
Dog	6	3	2	2	5	1	2	1	0	0	0	22
Horse	3	0	1	3	1	0	0	0	0	0	0	8
Fox	0	1	0	0	0	0	0	1	0	0	0	2
Squirrel	0	0	0	0	0	0	1	0	0	0	0	1
Badger	1	0	0	0	0	0	0	0	0	0	0	1
Total	106	100	108	57	31	29	35	27	25	31	12	561

During 2013, 1420 animals in Iowa were tested for rabies and 12 were confirmed positive (0.85%). The percent positive varies greatly by species, see the Table 2 below. It is important to note that this data is greatly influenced by the number of animals tested. Many animals are tested because they have contact with humans or domestic animals and they exhibit unusual behavior or clinical signs making them more likely to be infected with the rabies virus. For these reasons, the percentages should not be considered representative of the true distribution of disease within the animal population in Iowa.

Table 2: Percent Positive by Species in 2013

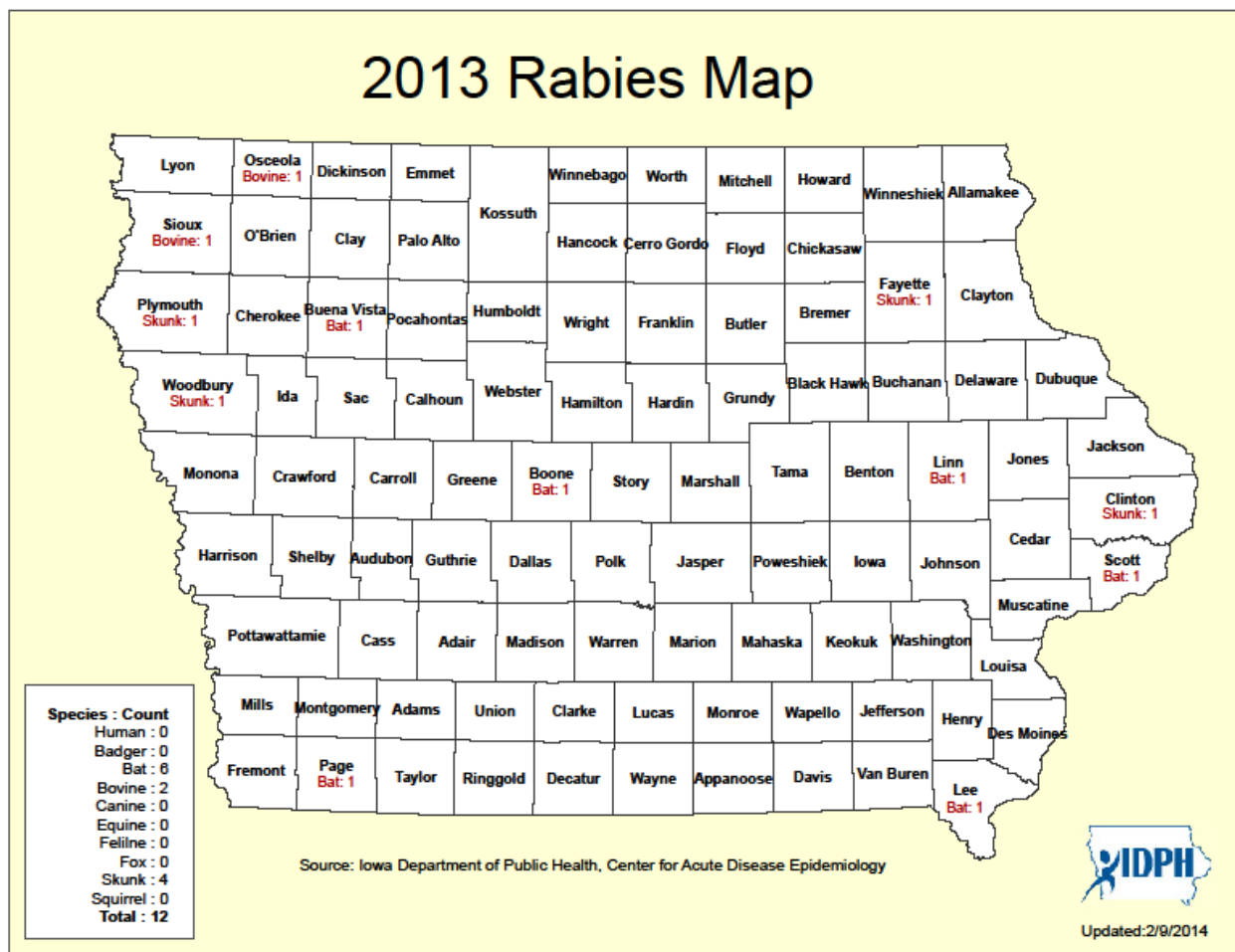
Species	Positive	Total Tested	% Positive
Skunk	6	10	60.00
Cow	2	68	2.94
Bat	4	480	0.83

There are two rabies strains that commonly circulate in Iowa (bat and skunk), and many different species can be infected with these strains. In animal samples that are strongly positive for rabies, the State Hygienic Laboratory (SHL) can differentiate the rabies strain that infected the animal (the strain typing procedure is only effective in samples that are strongly positive as opposed to weakly positive). In 2013, SHL was able to identify the rabies strain in 7 of the positive rabies cases, 4 were bat strain and 3 were skunk strain. Bat strain rabies was identified in 4 bats. Skunk strain rabies was identified in 2 skunks and 1 cow.

In Iowa, the most common bat species submitted for testing are the Big Brown bat and Little Brown bat; however other bat species are occasionally tested.

Table 3: Bat Species Tested and Positive for Rabies Infection

Species	Positive	Total Tested
<i>Eptesicus fuscus</i> (Big Brown bat)	6	431
<i>Myotis lucifugus</i> (Little Brown Bat)	0	28
<i>Nycticeius humeralis</i> (Evening Bat)	0	6
<i>Lasiurus borealis</i> (Eastern Red Bat)	0	2
<i>Rousettus aegyptiacus</i> (Egyptian fruit bat - imported animal)	0	2
Unknown	0	11
Total	6	480



There are two laboratories that test animals for rabies in Iowa:

- State Hygienic Laboratory at the University of Iowa
- Iowa State University Veterinary Diagnostic Laboratory

Iowa animals are also periodically tested in out-of-state laboratories

HUMAN RABIES IN IOWA:

Iowa's most recent human rabies case occurred in 2002, and was caused by the bat strain. Prior to that, the last reported case occurred in 1951.

While the exact number of people who receive rabies post exposure prophylaxis (PEP) each year in the United States is unknown, it is estimated to be about 40,000 people. Based upon Iowa's population, that would equate to approximately 390 Iowan's receiving PEP each year.