

WEST VIRGINIA RIVER OTTER BRIDGE SURVEY

2009



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West Virginia's 2009 bridge survey for river otter sign was conducted during the latter part of January through April. A 600-meter stretch, both upstream and/or downstream, at 105 bridges across the state were surveyed. Personnel from all districts participated.

Otter Sign

Otter sign was again detected at almost twice the number of bridges as reported in the 2004 survey (Table 1). Otter sign was observed at 35 of 108 bridges (32%) which was similar to last year. The most otter sign as a percent of bridges surveyed was observed in District 6 (64%). District 3 (56%) and District 4 (48%) also showed good detection of sign at bridges. Districts 1&2 were similar to last year, while District 5 showed a slight increase. Although detection was still good it has decreased from last year, perhaps significantly, in District 4. Detection in District 6 continues to rise.

Although independent reported observations indicate otter presence in most counties and drainages of the state, bridge surveys seem to indicate lower otter numbers in southwestern county drainages; the Monongahela, West Fork, Tygart, and Cheat drainages in the north-central counties; and the northern portion of the Potomac drainage in the eastern panhandle (Figures 1 & 2). It is possible that pH and other pollution issues may be continuing to have an impact on otter occupation of these portions of the state.

Occupied range appears to be well-utilized by otters. Reports of otter damage to private and state run fish hatchery operations have increased in recent years as have observations. Otter have been observed or collected in all but 14 of West Virginia's 55 counties (Figure 3). Most of these counties are in the southwestern portion of West Virginia and in the northern panhandle and include Barbour, Boone, Brooke, Hancock, Lincoln, Marshall, McDowell, Mercer, Mineral, Ohio, Taylor, Tyler, Wayne, and Wetzel Counties. The first report of an otter sighting in Mingo County was reported in March of 2009.

Other Furbearer Sign

Beaver sign was again recorded at the bridges surveyed (Table 2). In 2009, beaver sign was observed at 33% of bridges. This is down from previous survey years which were 37% last year, 46% in 2004, 43% in 2003, and 51% in 2002. Beavers were most common in the eastern panhandle and mountain counties. The only districts reporting more beaver sign than previous years were Districts 4 and 5.

Muskrat and mink sign observations remain similar to previous years statewide (Table 3). Raccoon sign was up in Districts 1 and 5, and similar to last year in other districts (Table 3).

Summary

Recent research has shown that bridge surveys are of no value in determining otter abundance. The same research has validated that such surveys are good tools for determining simple presence/absence of otters. The current survey is the fifth one conducted in the past eight years. It appears that otter range expansion has slowed in West Virginia due to lack of habitat suitability in some parts of the state. Based on reported observations, otters seem to be increasing in numbers in the better portions of their range.

It is recommended that the Wildlife Resources Section continue to seriously consider a limited otter trapping season within the next couple of years in select mountain and central counties. Thus far, Ohio, Kentucky, and Virginia have seasons in counties adjacent to West Virginia that have resulted in acceptable harvests of otters. These harvests do not seem to be detrimental to local otter populations, based on harvest trend data, and these states have been granted CITES approval for export of otter pelts.

Table 1. Number of bridges by county in each district along with presence of otter sign and percent of number of bridges with otter sign present in 2009.

District 1	Bridges	Otter Sign	Percent
Barbour	3	0	0
Brooke	2	0	0
Hancock	2	0	0
Harrison	2	0	0
Marion	2	0	0
Marshall	3	2	66
Monongalia	2	0	0
Ohio	1	0	0
Preston	2	1	50
Taylor	1	0	0
Tucker	4	0	0
Wetzel	2	0	0
Total	26	3	12

District 2	Bridges	Otter Sign	Percent
Berkeley	0	0	0
Grant	1	0	0
Hampshire	5	0	0
Hardy	4	2	50
Jefferson	0	0	0
Mineral	2	0	0
Morgan	2	1	50
Pendleton	2	0	0
Total	17	3	18

District 3	Bridges	Otter Sign	Percent
Braxton	2	2	100
Clay	3	0	0
Lewis	1	1	100
Nicholas	1	1	100
Pocahontas	3	2	60
Randolph	3	2	66
Upshur	1	0	0
Webster	2	1	50
Total	16	9	56

District 4	Bridges	Otter Sign	Percent
Fayette	1	1	100
Greenbrier	10	5	50
McDowell	0	0	0
Mercer	1	0	0
Monroe	1	0	0
Raleigh	2	0	0
Summers	3	1	33
Wyoming	3	3	100
Total	21	10	48

District 5	Bridges	Otter Sign	Percent
Boone	1	0	0
Cabell	2	0	0
Kanawha	7	0	0
Lincoln	1	0	0
Logan	2	1	50
Putnam	1	0	0
Wayne	1	0	0
Total	15	1	7

District 6	Bridges	Otter Sign	Percent
Calhoun	2	2	100
Doddridge	1	1	100
Gilmer	3	3	100
Jackson	1	0	0
Ritchie	4	3	75
Tyler	1	0	0
Wirt	2	0	0
Total	14	9	64

Table 2. Beaver sign observed on bridge surveys in 2009.

District	# Bridges	Beaver Sign	% Bridges
1	26	5	19
2	14	8	57
3	16	6	38
4	21	11	52
5	15	4	27
6	14	2	14
Total	107	36	34

Table 3. Raccoon, muskrat, and mink sign observed at bridge surveys in 2009.

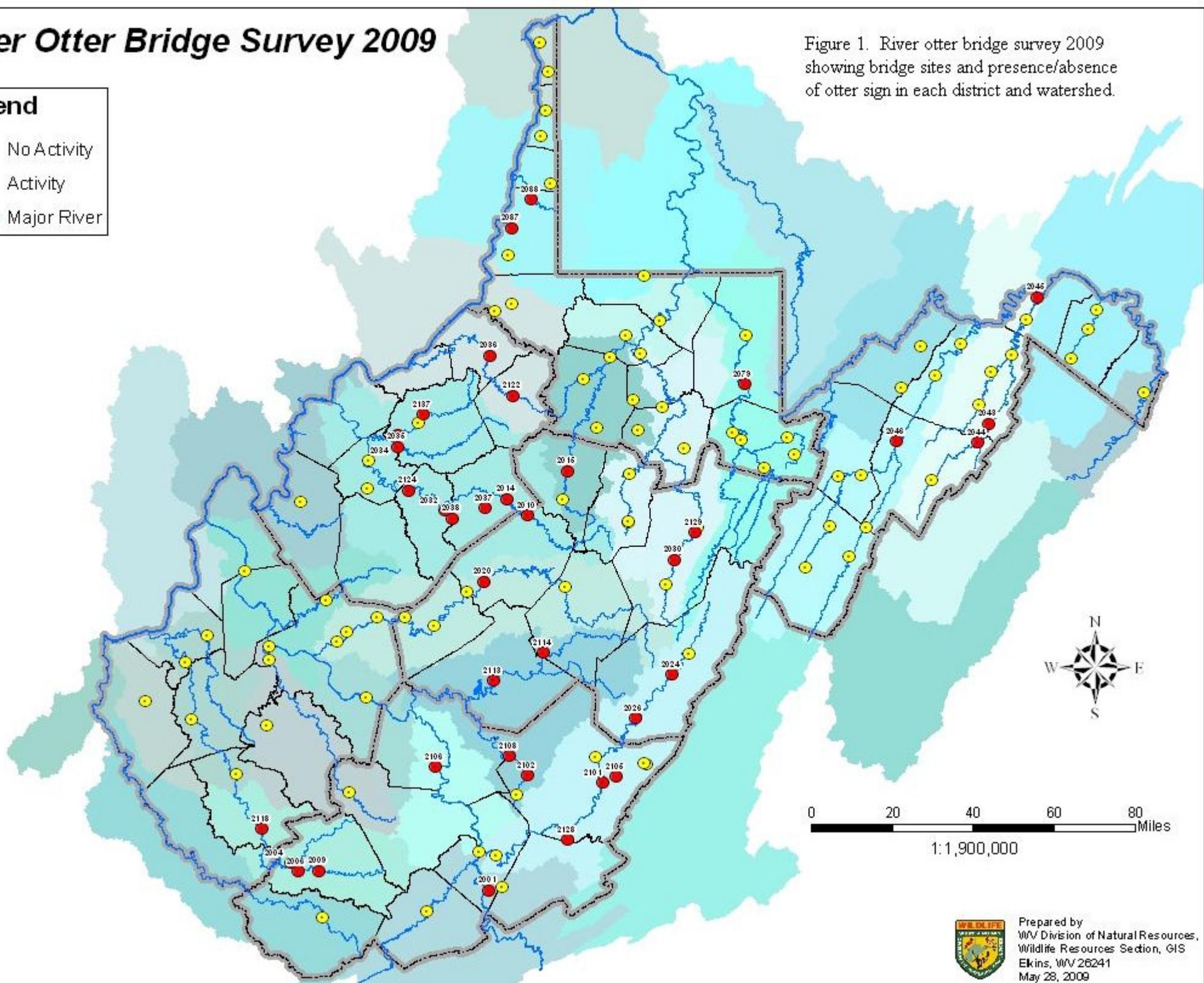
District	Raccoon Sign	% Bridges	Muskrat Sign	% Bridges	Mink Sign	% Bridges
1	23	88	13	50	4	15
2	12	71	5	38	7	54
3	10	63	4	25	4	25
4	14	67	4	19	6	29
5	14	93	6	40	5	33
6	3	21	3	21	5	36
Total	76	70	35	33	31	30

River Otter Bridge Survey 2009

Figure 1. River otter bridge survey 2009 showing bridge sites and presence/absence of otter sign in each district and watershed.

Legend

- No Activity
- Activity
- ~ Major River



River Otter Bridge Survey 2004-09

Legend

Number of Years Activity Observed

- 0
- 1
- 2
- 3
- 4
- 5

Major River

Figure 2. River otter bridge surveys 2002-2009 showing bridge locations and presence/absence of otter sign in each district and watershed.

