

Summary of 2007 Maryland Black Bear Mortality, Nuisance, and Sightings Reports

Background

The Wildlife & Heritage Service (WHS) has been documenting black bear sightings, mortalities, and nuisance reports since the early 1980s. By monitoring these indices over time, trends can be established regarding the black bear population, landscape use, and frequency of human-bear interactions. These tools can be especially useful in documenting range expansion as the bear population expands into previously unoccupied habitats. By identifying these trends, wildlife managers will be better prepared to respond to human-bear interactions, develop appropriate I&E strategies, and make sound management decisions.

Mortality Survey

In 2007, WHS recorded 56 non-seasonal (non-hunting) mortalities in Maryland (figure 1). Vehicle-bear collisions continue to be the largest cause of non-seasonal mortality, accounting for 41 (73%) of the year's 56 recorded mortalities. As in 2006, road kills of 2007 were recovered in all 4 western counties (Garrett, Allegany, Washington, and Frederick).

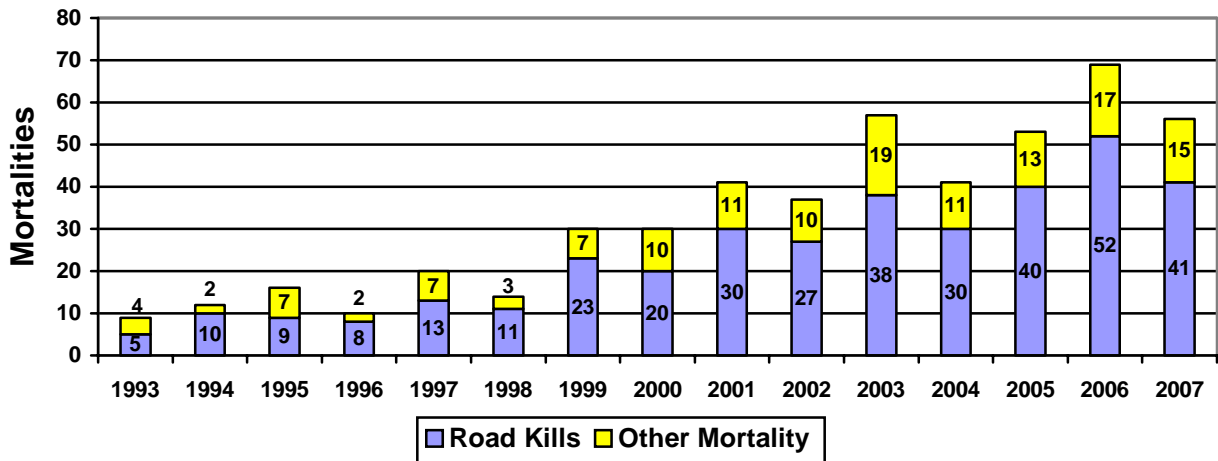


Figure 1. Non-seasonal black bear mortality in Maryland (1993 – 2007).

Garrett County continued to lead the state in non-seasonal mortalities in 2007 (figure 2). This is primarily due to the high density of bears found in the area, as Garrett County contains most of Maryland's traditional bear range. In 2007, 32 dead bears were recovered by DNR in Garrett County, down from the 39 bears recovered in 2006, mirroring the totals recovered in both 2004 and 2005. These numbers may indicate a stabilizing trend on the horizon for Garrett County.

Up by 2 from the previous year, 19 dead bears were recovered in Allegany County in 2007. Allegany County continues to show an increasing trend in non-seasonal mortality. Washington County recovered 2 road-killed bears in 2007, down from a spike of 13 bears recovered in 2006. In 2007, 3 dead bears were also recovered in Frederick County.

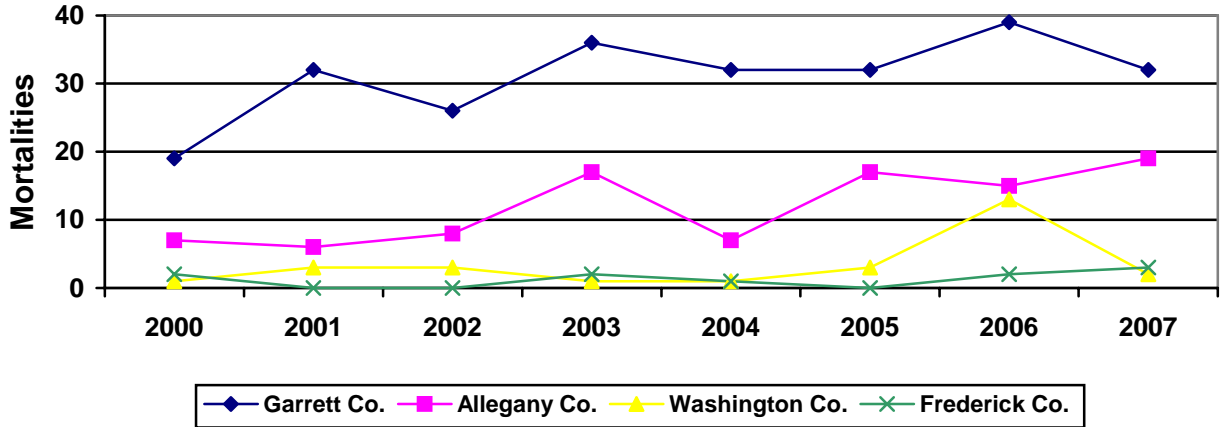


Figure 2. Non-seasonal black bear mortality by county (2000 – 2007).

Categories of mortality include legally harvested bears, illegal kills, road-killed bears, death by unknown causes, and other mortality events. Other mortality events are unique cases and thus do not fall under the traditional categories. In 2007 these other mortality events included 1 young bear in poor health condition, euthanized and later found to have a congenital heart defect, and 1 injured bear euthanized and later tested positive for the rabies virus (figure 3).

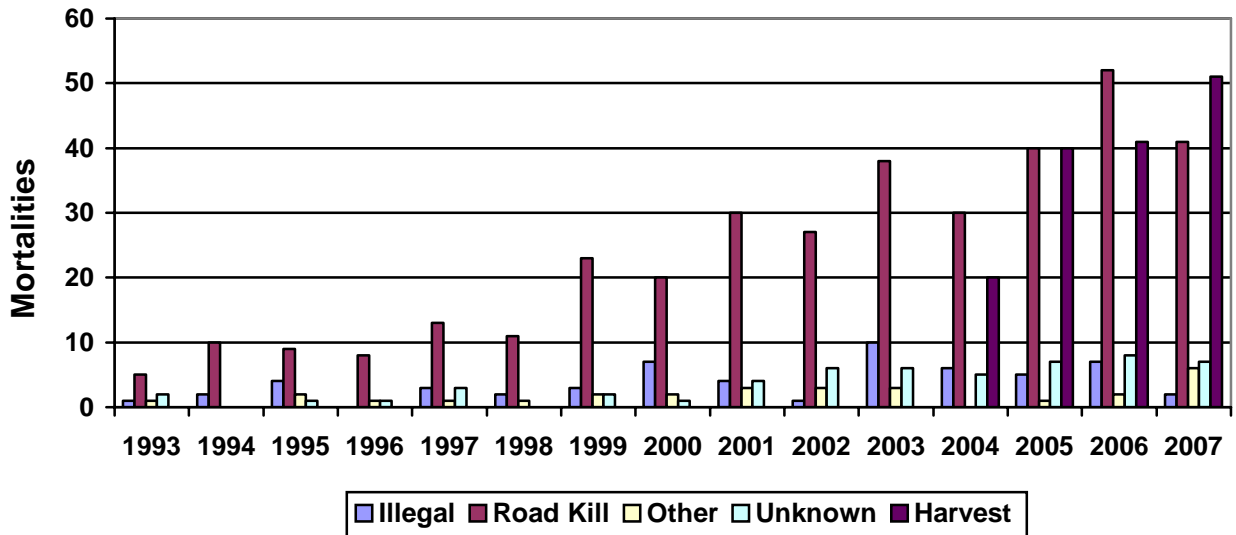


Figure 3. Black bear mortality in Maryland by category (1993 – 2007).

Black Bear Nuisance Complaints

In 2007, WHS logged 296 black bear nuisance complaints in 5 counties (Garrett, Allegany, Washington, Frederick, and Montgomery) (Table 1). This is a 17% decrease from 2006 (357 complaints), and an 8% decrease compared to the 5-year average of 321 complaints (Figure 1). It is important to remember that there are many factors that influence the frequency of nuisance calls received by WHS. These include the distribution and abundance of the black bear population, the level of acceptance/tolerance that the public has for bears, natural and artificial food source availability, and other social factors (such as trash exclusion ordinances, no-feeding regulations, and bear hunting regulations).

Table 1: 2007 Black Bear Sightings and Complaints

Code	GA	AL	WA	FR	HO	MO	BA	PG	CA	Total
1	33	25	1	1		1				61
2	16	7	1							24
3	10	36	11	5		1				63
4	7	2								9
5	13	8	1							22
6	NA	34	29	14	1	8	2	1	1	90
7	20	16	3	3						42
8	4	1		1						6
9	5	0								5
10	2	0								2
11	0	1								1
12	5	1								6
13	0	2	2							4
14	17	0								17
15	3	0								3
16	3	0								3
17	1	0								1
18	11	5	1							17
19	10	0								10
Total	160	138	49	24	1	10	2	1	1	386

Codes:

- | | |
|--------------------|---------------------|
| 1. Trash | 10. Pets |
| 2. On Porch | 11. Poultry |
| 3. Birdfeeders | 12. Livestock |
| 4. Building Damage | 13. Beehives |
| 5. Safety | 14. Field Corn |
| 6. Sighting | 15. Sweet Corn |
| 7. Hit by Car | 16. Oats |
| 8. Bear in Tree | 17. Other Crops |
| 9. Campground | 18. Other |
| | 19. Home/Bldg Entry |

In 2007 a new complaint category of Home/Building Entry (code19) was added to quantify the number of occurrences of bears entering occupied homes and buildings. Though the frequency of bear/human conflicts in Garrett County seems to be stabilizing, the severity of conflicts may be increasing. In 2007 there were 10 separate incidents where a bear or bears entered or attempted to enter a home or building. Areas entered by bears included homes, enclosed porches, and garages. In some cases, bears damaged window and door screens to gain entry while others gained entry through open doors and windows.

The leading category of bear/human conflicts in western Maryland concerns human provided food attractants (Figure 4). In 2007, birdfeeders and garbage complaints made up close to 60% of the total complaints in Allegany, Washington and Frederick Counties with Garrett County showing a 27% complaint rate in that category.

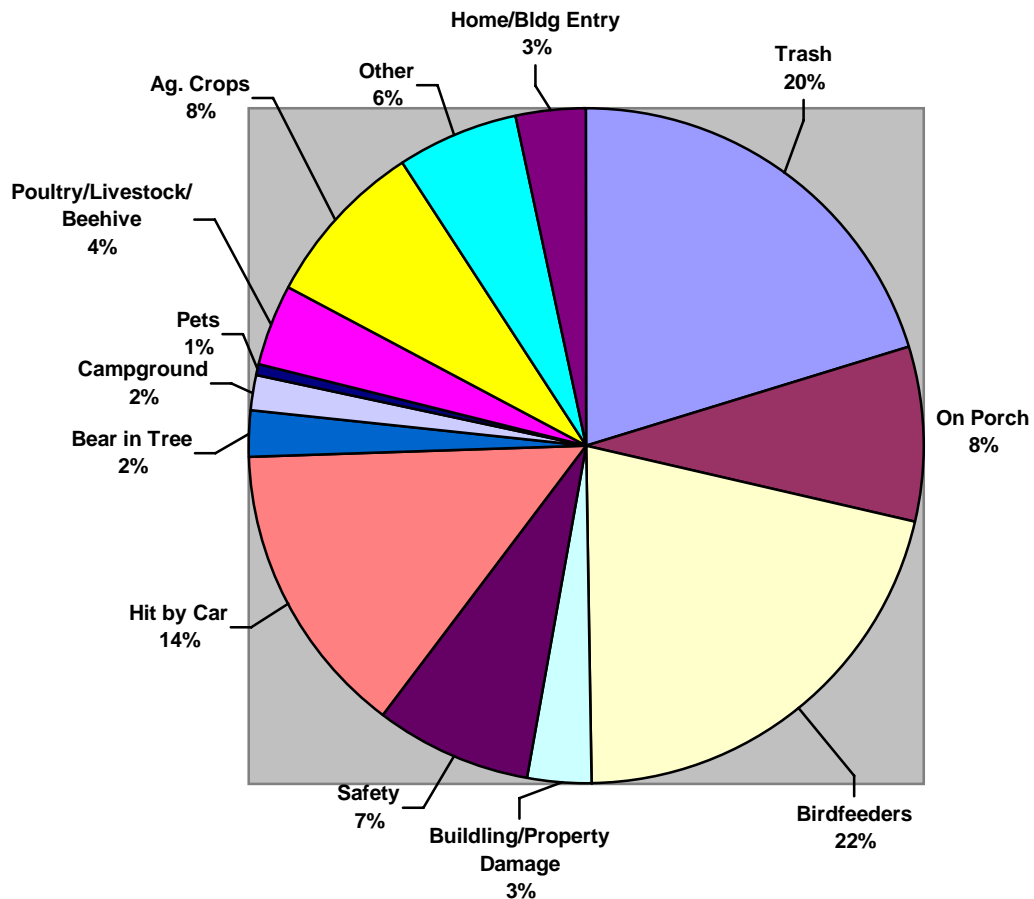


Figure 4: Western Maryland Black Bear Complaints (Garrett, Allegany, Washington and Frederick County)– 2007

In 2007, 160 nuisance complaints were logged in Garrett County. This is a 16% decrease from the number of complaints logged in 2006 (191 complaints) and a 17% decrease from the 5-year average of 194 complaints in Garrett County. Some factors that may be contributing to this trend include: residents are becoming accustomed to living with bears, the opportunity to hunt bears is having a positive influence on bear tolerance within the county, and recent increases in voluntary and mandatory trash exclusion have been made in the Deep Creek Lake area. Bear-vehicle collisions, trash complaints, and agricultural damage are the most frequent nuisance complaints received in Garrett County.

In 2007, Allegany County showed a 17% decrease in nuisance complaints (104 in 2007 versus 126 in 2006) but is consistent with the 5-year average of 103 complaints. Although bears have been present in Allegany County for several years, the density of bears in the county is increasing and bears now occupy all regions of the county. Birdfeeder and trash complaints continue to make up the majority of complaints in Allegany County.

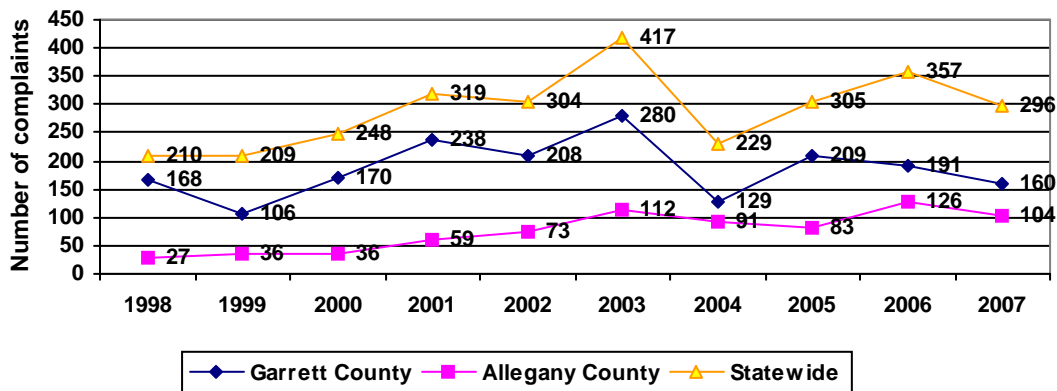


Figure 5: Frequency of black bear complaints in Garrett County, Allegany County and Statewide, 1998-2007).

Black bear nuisance complaints continue to increase in Washington and Frederick counties. Although these counties only comprise 10% of the 2007 nuisance complaints, the number of sightings (43) is a 16% increase over 2006 (36). These two counties are on the fringe of two different fronts – urban sprawl spreading from the east and black bears spreading from denser bear populations in the west. The potential for future bear/human conflicts in these counties is significant. WHS should look for black bear information and education opportunities in these counties.

Black Bear Sightings

In 2007, WHS recorded 90 black bear sightings across the state, excluding Garrett County* (Table 2). The 90 sightings received in 2007 represent a 6% decrease compared with the 96 sightings received in 2006 but a 12% increase compared to the 5-year average of 79 sightings. In 2007, black bear sightings were recorded in Allegany, Washington, Frederick, Montgomery, Baltimore, Howard, and Calvert counties.

Table 2. Black bear sightings in Maryland (1993 – 2007).

Year	Garrett*	Allegany	Washington	Frederick	Other	TOTAL
1993	N/A	15	5	1	1	22
1994	N/A	28	8	2	1	39
1995	N/A	19	2	9	3	33
1996	N/A	21	6	5	7	39
1997	N/A	44	5	5	7	61
1998	N/A	52	10	12	8	82
1999	N/A	17	42	49	27	129
2000	N/A	20	10	13	16	59
2001	N/A	27	11	10	46	94
2002	N/A	27	10	13	10	60
2003	N/A	50	6	11	12	79
2004	N/A	31	7	5	6	49
2005	N/A	34	28	13	6	81
2006	N/A	47	15	21	13	96
2007	N/A	34	29	14	13	90

*Since 1993, bear sightings have not been recorded in Garrett County. Bears are known to occupy all areas of the county, and sightings in Garrett County have become commonplace.

Black bear sightings are a valuable tool that can be used to monitor range expansion. Black bear sightings are also very valuable outside traditional bear habitat, allowing managers to monitor individual bears as they move through a non-traditional area (as is often the case in central Maryland). These sightings, however, are not a suitable indicator of population size. In more urban areas of the state, a single bear is likely to be reported several times. In contrast, rural bear sightings are less likely to elicit multiple reports.

In 2007, WHS received reports of 34 black bear sightings in Allegany County. This is a 28% decrease compared with 47 sightings reported in 2006 and a 13% decrease compared with the 5-year average of 39 bear sightings in Allegany County. As the bear density increases in Allegany County and citizens learn about their habits and behavior it is expected that reports of sightings will diminish as they have in Garrett County where bear densities are highest.

Washington and Frederick counties received 29 and 14 sightings respectively in 2007. In Washington County, this is an increase of 56% compared to 15 recorded sightings in

2006 but a decrease of 33% in Frederick County compared to the 21 reported sightings in 2006. However, in 2007, sightings in both Washington and Frederick counties exceeded the 5-year averages. Washington County saw a 71% increase over the 5-year average of 17 sightings, and Frederick County saw an 8% increase over the 5-year average of 13 sightings.

Black bear sightings east of Maryland's resident bear range (east of Frederick County) numbered 13 in 2007. This is consistent with the 13 sightings reported in 2006 and exceeds the 5-year average of 10 sightings east of Frederick County. Likewise, bear sightings are increasing in Baltimore, Montgomery and Howard Counties - areas that traditionally have been devoid of bears. It is important to note that these sightings are largely due to dispersing juvenile bears passing through these areas where there is currently no resident bear population. As the density of bears increases in the western part of the state though, it is expected that they will continue to move eastward and occupy suitable habitats.