Table 1. Causes of mortality in wild red wolves (Canis rufus) 2011-2014.

Cause of Death	# of Total Mortalities 2011	# of Total Mortalities 2012	# of Total Mortalities 2013	# of Total Mortalities 2014
Natural				
Health-related	2	1		1
Intraspecific competition	0	0		
Human-related				
Management-related actions	0	2		
Non-management-related actions	2	0	1	1
Vehicle strike	3	3	3	2
Suspected or confirmed gunshot	7	8	9	2
Poison				
Unknown				
Lack of biomaterial	5	4		1
Suspected illegal take	2	1	2	
Pending necropsies	0	0		1
Total Mortalities	21	19	15	8
Population Estimates				
Known wild red wolves (End of Year)	66	65	66	62
Estimated total wild red wolves	90-110	100-120	90-110	90-110

## **Definitions:**

Health-related: mortality as a result of acute illness, disease (e.g., heartworm, mange), starvation, and old age.

Intraspecific competition: injuries caused by other red wolves.

Lack of biomaterial: mortalities in which not enough of the carcass remains (e.g., partial skeleton or hair mat) to determine cause of death.

*Management-related actions*: mortality related to USFWS conservation actions, including trapping, denning, monitoring, handling, and animal processing.

Non-management-related actions: mortality related to private trapping.

Pending necropsies: cause of death initially undetermined; waiting for official necropsy results

Suspected or confirmed gunshots: mortality related to gunshot. Most of these cases are ongoing investigations with the USFWS Office of Law Enforcement. Confirmed cases include official necropsy results and/or x-rays showing evidence of gunshot, or when the mortality was reported by the shooter as mistaken identity (e.g., coyote) or as a threat to life or property.

Suspected illegal take: evidence of foul play exists (e.g., a cut or removed radio-telemetry collar), but cause of death has not yet been determined. These cases may include ongoing investigations with USFWS Office of Law Enforcement. Take is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" (Endangered Species Act of 1973, as amended).

Vehicle: mortality sustained from the collision with a motor vehicle (including farm equipment)

For more information on the Red Wolf Recovery Program activities, please see our most recent quarterly report.