

2024 August Quail and Pheasant Roadside Survey Results

Northern Bobwhite Abundance

Conservation Agents conducted roadside counts of bobwhite quail from August 1-15 in 111 of Missouri's 114 counties. Clay, Jackson, and St. Louis counties are not included because they are high density urban areas near Kansas City and St. Louis. Surveyors count the number of quail observed while driving ≤ 20 miles per hour along permanent 30-mile gravel road routes. Participants are instructed to conduct counts beginning at sunrise on clear, dewy mornings with light winds to increase chances that bobwhite will be near roadsides. These observations are used to provide an index of quail abundance across the landscape. Because only a small portion of each county is sampled, the index best represents quail population trends at large scales, such as statewide and multi-county blocks such as the zoogeographic region. The statewide long-term trend of the index closely follows other large-scale indices of abundance, including the North American Breeding Bird Survey (BBS) and Missouri quail harvest estimates. The roadside survey routes are run almost entirely through private land, so the quail index is representative of conditions on Missouri's private lands.

This year's statewide index of 2.10 quail per 30-mile route is 86% higher than last year's index of 1.13. Despite a record-breaking cold snap in January, the winter of 2024 ended up as Missouri's 2nd warmest winter on record. Winter temperatures ranged from 1.5 degrees below average in January to 12.1 degrees above average in February, with locations in southern Missouri reporting temperatures in the high 80's. Winter precipitation was slightly below average, except in January it was 1.42 inches above average. Increased precipitation during the spring helped alleviate 2 years of drought conditions throughout most of the state. Spring precipitation amounts ranged from 0.09 inches to 1.84 inches above average. Mild winter conditions and near normal precipitation amounts in the spring were beneficial to quail production in 2024.

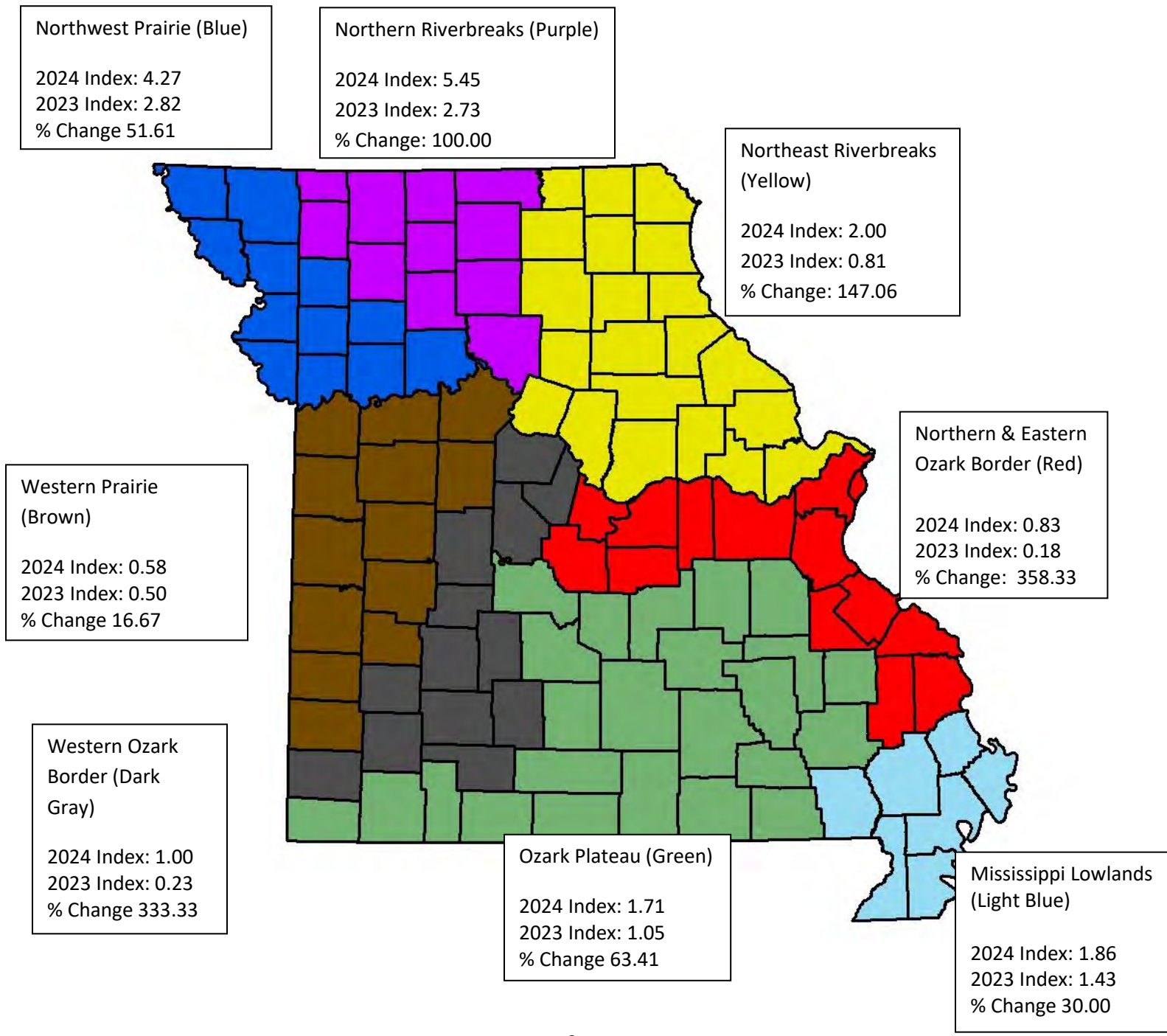
Ring-necked Pheasant Abundance

The Conservation Agents' Roadside Survey counts the number of pheasants observed along 73 standardized 30-mile routes (a subset of the routes sampled for bobwhites) during August 1-15. The 2024 survey showed a decline in Missouri's pheasant population. The 2024 statewide count of 0.22 pheasants per 30-mile route was down 39% compared to 2023. The pheasant range in Missouri is limited to the northern third of the state. Pheasants should have had good overwinter survival and nesting conditions this year but did not respond as well as quail. Continued loss of habitat especially those enrolled Conservation Reserve Program lands has had a negative impact on overall pheasant populations in Northern Missouri.

Average number of quail counted per 30-mile route by Conservation Agents in 111 counties during August 1-15, 2024.

Zoogeographic Region	# of counties run in 2024	# of Quail Counted 2024	# of Quail Counted 2023	% Change 2023-2024
Northwest Prairie	11	4.27	2.82	51.61
Northern Riverbreaks	11	5.45	2.73	100.00
Northeast Riverbreaks	21	2.00	0.81	147.06
Western Prairie	12	0.58	0.50	16.67
Western Ozark Border	13	1.00	0.23	333.33
Ozark Plateau	24	1.71	1.05	63.41
Northern and Eastern Ozark Border	12	0.83	0.18	358.33
Mississippi Lowlands	7	1.86	1.43	30.00
Statewide	111	2.10	1.13	85.82

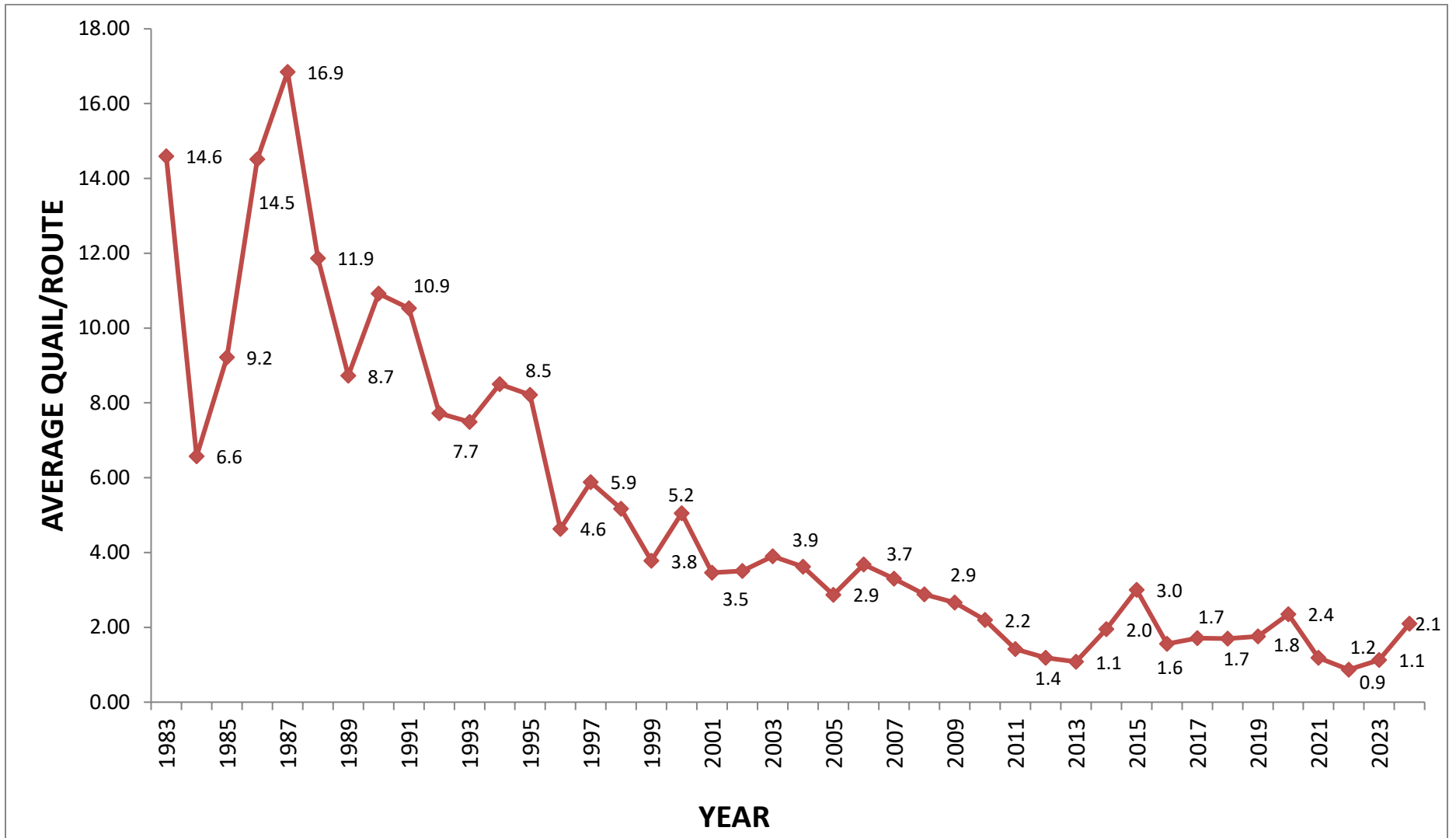
Map of zoogeographic regions in Missouri showing the 2024 and 2023 quail roadside index and the 2-year percent change.



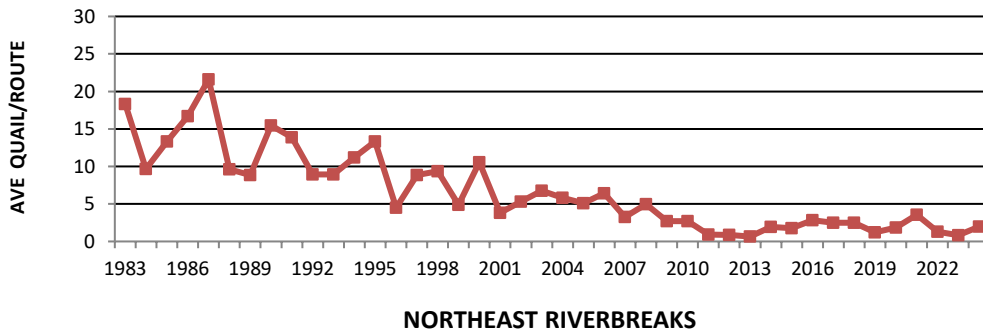
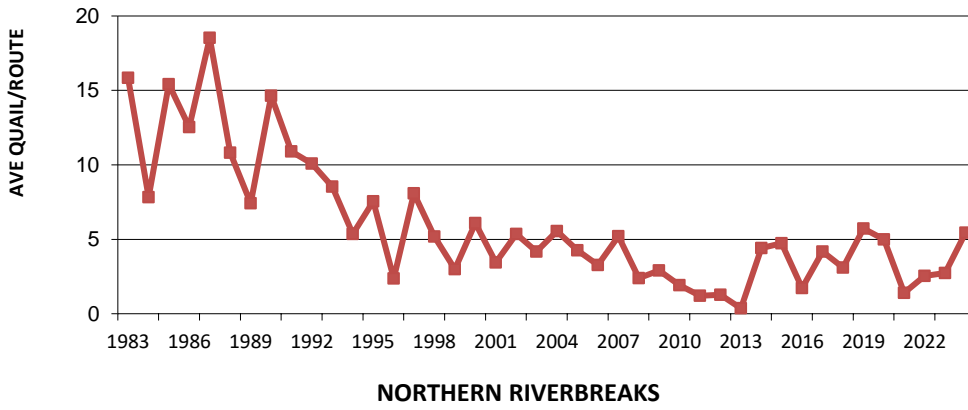
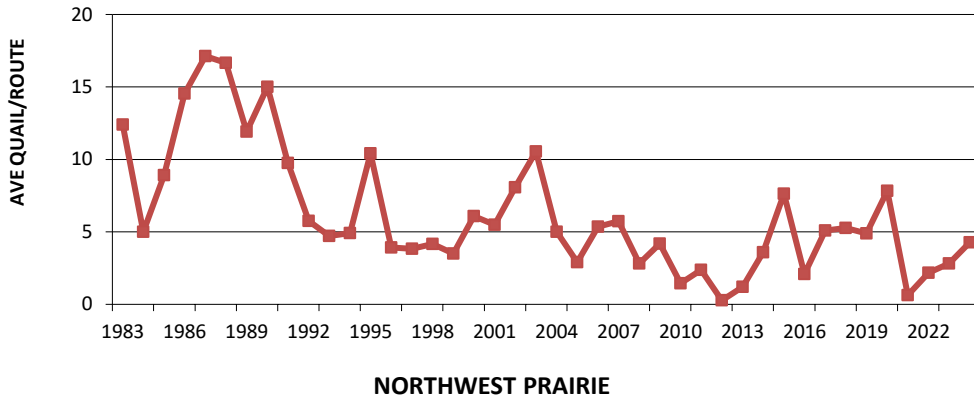
Average number of pheasants counted per 30-mile route by Conservation Agents along 72 routes during August 1-15, 2024.

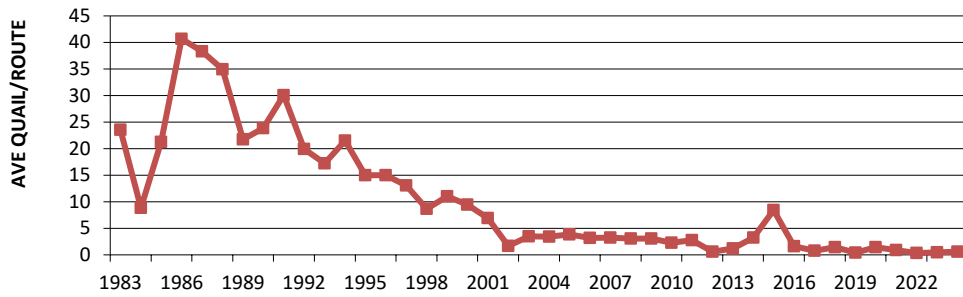
Zoogeographic Region	# of routes run in 2024	# of Pheasants Counted 2024	# of Pheasants Counted 2023	% Change 2023-2024
Northwest Prairie	19	0.00	0.00	
Northern Riverbreaks	21	0.33	0.52	-36.36
Northeast Riverbreaks	24	0.38	0.63	-40.00
Western Prairie	3	0	0	.
Mississippi Lowlands	6	0	0	
Statewide	72	0.22	0.36	-39.30

Average number of quail observed per route on the August Roadside Survey from 1983-2024.

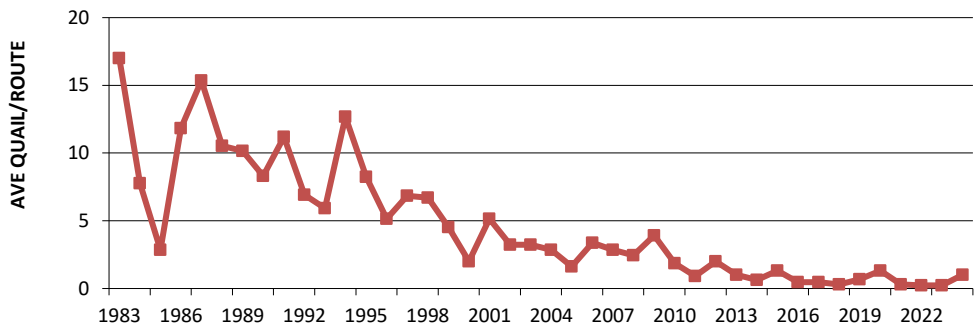


Average number of quail per route by zoogeographic region from 1983-2024.

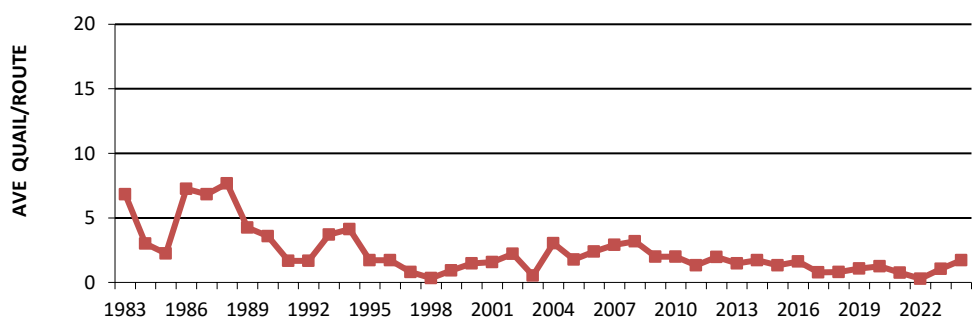




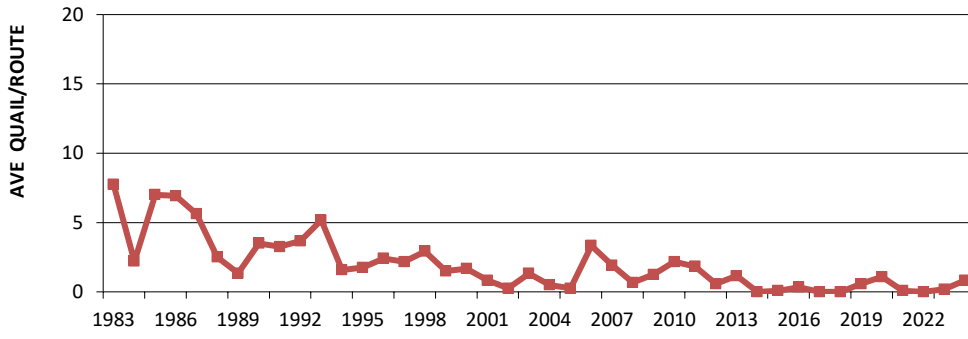
WESTERN PRAIRIE



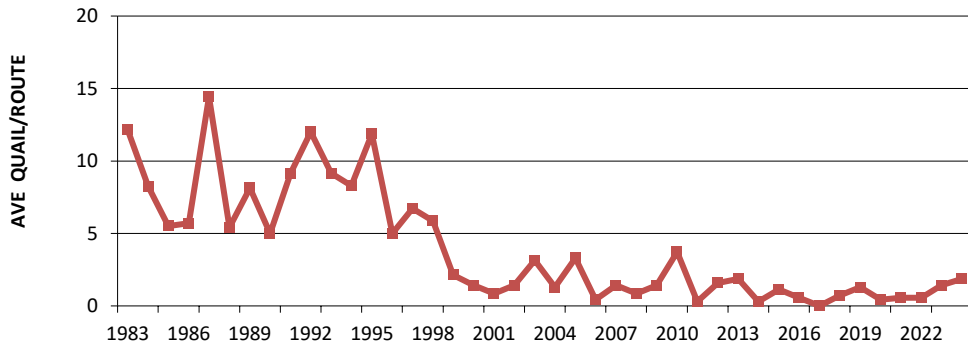
WESTERN OZARK BORDER



OZARK PLATEAU



NORTHERN AND EASTERN OZARK BORDER



MISSISSIPPI LOWLANDS