

Kansas Bobwhite Status Report
National Bobwhite Technical Committee
Wichita, KS
August 3-6, 2010

In Kansas, bobwhite populations are monitored within 6 management regions (Figure 1). This report provides a brief description of bobwhite population trends in Kansas over the last 30+ years. At the time of this report most of the 2010 surveys conducted by the Kansas Department of Wildlife & Parks (KDWP) had not yet been completed or analyzed. Thus, data from 2009 is the most recent information presented in this report. This report also contains a short update on KDWP's private land programs and farm bill activities.

Production

The KDWP gauges production of bobwhites using a young:adult index derived from the July rural mail carrier survey (RMCS) and from a departmental August roadside survey. The statewide 2009 young:adult ratio was 28.1% below the long-term average from the previous 25 year period (Figure 2). Per capita production was below average in every region but the worst production occurred in the western 1/3 of the state (Figure 3).

By backdating broods observed during the August roadside count a frequency distribution was created to illustrate the time when Kansas bobwhite nests hatched during 2009 (Figure 4). The peak hatching period was estimated to be the first two weeks in July. The peak of hatch in 2009 was skewed about two weeks later than the long-term average. This was likely due to few early nests hatching as a result of heavy rain during early June in many parts of the state. The mean brood size during the 2009 observation period was 9.4 which was similar to the previous 20 year mean of 9.1.

Population Trends

The KDWP uses 3 indices to track long-term trends in bobwhite abundance across the state. The RMCS provides the longest dataset and has been run since 1962. The RMCS is conducted during 4 separate observation periods (i.e., January, April, July, and October) and >500 mail carriers currently participate in this voluntary effort. The data they collect are standardized into an index of observations per 100 miles driven. Because the 4 separate indices are highly correlated ($r > 0.85$) only the April RMCS index will be discussed in this report. The April RMCS index shows a long-term decline of northern bobwhites in Kansas at the rate of 4.5% per year since 1962 (Figure 5). The other 2 methods utilized by the KDWP to track bobwhite abundance are hunter harvest estimates and the recently initiated whistle count survey (started in 1998). Both of these indices reveal a similar declining trend on a statewide scale.

The indices to bobwhite abundance have declined in every region of the state since 1962 but the declines have been the most severe in the eastern management regions (Figure 6). These regions have been the most effected by natural succession, woody encroachment into grasslands, conversion of native grassland to tall fescue, and annual burning associated with early intensive stocking of livestock. These land use changes have either not occurred in central and western Kansas or have been much less severe. In fact, bobwhite habitat in far western Kansas has actually increased in recent years as a result of >2 million acres of farmland being converted back to grass either through the CRP program. This addition of grassland to the landscape has resulted in an increasing trend in bobwhite abundance in western Kansas over the last decade.

The 2010 April RMCS data revealed a 15% decline in bobwhite abundance from the previous year. Most of the decline was due to deep snow cover and extreme cold that affected portions of east-central and northeastern Kansas last winter. Other parts of the state were not as

greatly affected and quail numbers in those regions have remained fairly stable in recent years. The bobwhite population is at or near record low levels in the eastern 1/3 of the state.

Harvest and Regulations

Prior to the fall 2007 season, the estimated bobwhite harvest in Kansas had remained relatively stable between 600,000 and 700,000 for each of the prior 4 years. However, the statewide harvest declined to 481,000 in 2007 as a result of the record-low bobwhite numbers in the southeast and northwest portions of the state. Bobwhite harvest in Kansas has remained in the 400,000s since that time and was estimated at 485,000 during the 2009-2010 hunting season. During the last 5 year period, the greatest annual harvest typically occurred in the south-central region (117,000-150,000) followed by the north-central region (81,000 – 136,000), and the west region (73,000 – 104,000) (Figure 6). Lower bird densities and scattered populations are responsible for consistently lower annual harvests in the northeast (35,000-90,000), Flint Hills (40,000 – 87,000), and southeast (35,000-95,000) management regions.

The structure and timing of Kansas' upland game hunting seasons were modified in 2006. After the second year with the new season (2007) there was still much displeasure amongst Kansas' upland bird hunters. Recently the KDWP commission voted to change the season dates again to more closely align with hunter and landowner preferences. The modified seasons took affect for the 2009-2010 season and included a concurrent pheasant and quail season starting on the 2nd Saturday in November and running through January 31 (Table 1).

Translocations and Research

In 2009 the Ohio Division of Wildlife (ODW) completed their trapping efforts in Kansas. They were permitted to remove ≤ 250 bobwhite per year from Kansas from 2004 to 2009; although they did not trap during all of those years. The ODW is in the process of trying to re-

establish bobwhite populations at several re-claimed coal mine properties across Ohio. The permit issued by KDWP allowed them to trap and translocate birds from the Wolf Creek Nuclear Power Operating Facility in east central Kansas. The facility is a non-hunted property that normally holds high densities of bobwhites.

The Colorado Division of Wildlife was issued a permit to remove 75 birds from Kansas during the winter of 2009-2010. The CDOW captured birds primarily on Kanopolis State Park which is a non-hunted property operated by KDWP. Those birds were translocated to southeastern Colorado where they were released along the Arkansas River in an attempt to re-establish a population. It is not yet known if that effort was successful.

Currently, there are no agency funded bobwhite research projects being conducted in Kansas. The conservation department at Fort Riley military installation is conducting a research project using radio-marked birds to assess how bobwhites utilize several different habitat modifications on the fort. The KDWP is providing some limited guidance for the project.

PRIVATE LAND PROGRAMS BENEFITTING QUAIL

KDWP Private Land Programs

The Kansas Department of Wildlife & Parks (KDWP) first instituted a program to provide technical and direct assistance to private landowners in 1973. In a state with approximately 97% of its land in private ownership, the development and continuation of programs that assist private landowners with wildlife habitat improvement are crucial management tools. These programs provide important services and information to landowners, many of which benefit bobwhites. Below is a brief description of the varying private land programs that are currently benefiting bobwhites across Kansas.

Private Lands Habitat Management Programs

The framework of the Private Lands Habitat Management Program consists of the Upland Game Bird Initiative, Pheasant Initiative, Quail Initiative, Prairie Chicken Initiative and KDWP Wildlife Habitat Improvement Program. This program allows for KDWP Biologists and private landowners to work together in the development of habitat management plans. These plans directly impact wildlife species and habitats specific to the individual plan. Many plans focus on CRP enhancements that include cost sharing on prescribed burning, light disking, food plot establishment, forb/legume interseeding, brush removal, and providing additional SIP (Sign-Up Incentive Payment) or PIP (Practice Incentive Payment) incentives to help increase the enrollment in several Continuous CRP practices. Other plans have been developed to provide cost share for the conversion of farmland to native grass, converting grazing land from cool season grass to warm season grass, hedgerow renovation, wetland development, and deferred grazing on native rangeland. This program also provides the cooperating landowner the opportunity to loan or rent native grass drills, tree planting machines, weed barrier fabric machines, root plows, drip torches, and portable tanks and sprayers for controlled burns. Since 2004, conservation partners have contributed over \$80,000, adding to the nearly \$690,000 in contributions from KDWP. In 2009 alone, approximately \$120,000 was spent for direct on-the-ground habitat management projects across the state through the Upland Game Bird Habitat Initiative (UGBHI).

Buffer Coordinator Program

Recognizing the importance of buffers (strip habitats) to edge-associated upland birds, KDWP initiated a program to hire temporary employees in the County Conservation District Offices to encourage enrollment of grass buffers into the continuous conservation reserve program (CCRP). This federal, state, and local partnership is similar to the successful program

in Iowa. Over \$350,000 was available in 2003 from KDWP, an EPA 319 grant, and local contributions. KDWP contributes \$150,000 per year. The State Conservation Commission administers the program and NRCS provides a full time coordinator.

USDA Farm Bill Programs

The Kansas Department of Wildlife & Parks has continued to promote wildlife related farm bill programs. The following are examples of those programs promoted by the agency that are of benefit to bobwhites.

Conservation Reserve Program (CRP)

Kansas continues to be one of the national leaders in terms of CRP enrollment. As of December 2009, approximately 2.7 million acres in Kansas were enrolled in general sign-up CRP. Additionally, there are over 115,000 acres enrolled in CCRP practices in Kansas. One of the most popular CCRP practices is conservation practice 33 (CP-33; Habitat buffers for upland birds) which provides cost-share and rental payments to establish grass borders around crop fields. Because the CP-33 program was so popular in Kansas the state was awarded additional acreage during two different reallocations (62,500 acres total). By the end of 2009, there were 36,406 acres enrolled in the program. Most of the acreage enrolled in CP-33 is in the eastern 2/3 of the state within Kansas' primary bobwhite range. The KDWP has been monitoring the response of quail and pheasants on a random sample of enrolled acreage and both species have responded positively to the addition of the new habitat.

State Acres for Wildlife Enhancement (SAFE)

A total of 30,100 acres has been allocated to Kansas for the newly created SAFE program. The KDWP's SAFE proposal has been approved and it will focus on creation of bobwhite and pheasant habitat in and around row crop fields throughout the state. The SAFE

program will allow enrollment of portions of expiring CRP acreage, center-pivot irrigation corners, and interior strips within fields (e.g. terraces or cross-wind trap strips); up to 20% of the entire field. The practice will allow for some limited grazing and haying that should make it more acceptable to landowners and provide alternative methods to create needed disturbance within mature stands of grass. Although this practice has gotten off to a slow start the potential is there to make a significant impact on grassland habitat across the state due to the practices' simplicity and flexibility. At the end of 2009, there were 4,710 acres enrolled state-wide.

Conservation Reserve Enhancement Program

Another quail friendly practice that has been created through a partnership between the state of Kansas and the Farm Service agency is the conservation reserve enhancement program (CREP). Through voluntary enrollment, the program will remove up to 20,000 acres of cropland along the Arkansas River in portions or all of the following counties: Barton, Edwards, Finney, Ford, Gray, Hamilton, Kearny, Pawnee, Rice, and Stafford. The enrolled acres will be under contract for 14-15 years and seeded to a mixture of grass and forbs. The primary purposes of this CREP are to improve flow in the Arkansas River and reduce groundwater usage but quail and other upland birds will also benefit. As of December 2009, there were 9,861 acres enrolled through the CREP in Kansas.

Wildlife Habitat Incentives Program (WHIP)

Federal WHIP is a voluntary program that provides up to 75% cost-share assistance for establishing and/or improving wildlife habitat on private lands. KDWP district wildlife biologists have continued to deliver most aspects of the Federal Wildlife Habitat Incentives Program (WHIP). This includes program promotion, landowner contact, conservation planning and technical assistance with practice implementation. This continues to be a very successful

partnership with the Natural Resources Conservation Service. Last year alone (Federal FY2009), 116 WHIP contracts were approved, bringing nearly \$980,000 in federal funding to the state for wildlife habitat improvement projects.

Environmental Quality Incentive Program (EQIP)

The Environmental Quality Incentive Program (EQIP) is a voluntary conservation program that promotes agricultural production and environmental quality as compatible goals. EQIP contracts provide incentive payments and cost-shares to landowners for implementing conservation practices on their lands. Although not nearly as involved as in other programs, KDWP Biologists continue to promote EQIP, especially those applications that address wildlife resource concerns such as grassland health and tree encroachment onto native prairies. Additional efforts were made in 2009 to increase the applications of the EQIP to better address wildlife habitat issues.

Landowner Incentive Program (LIP)

This initiative was started in 2006 with a grant from the U.S. Fish and Wildlife Service. Targeted areas are the mixed-grass and short-grass prairie ecoregions of Kansas. Landowners receive 75% cost assistance for implementing practices that benefit species included in the State Wildlife Action Plan (SWAP). Seventeen projects, primarily in the Red Hills of southwest Kansas, have been selected for implementation, which will impact 21,129 acres and benefit 18 species from the SWAP including the northern bobwhite and lesser prairie chicken. Common practices include mechanical brush removal, prescribed fire, and native grass planting. Total cost of completing these projects was \$677,301.

Table 1. Upland game season dates and bag limits in Kansas, 2010-2011.

Species	Season Dates	Daily Bag	Open Areas
Prairie chicken (Early)	15 Sep. – 15 Oct.	2(8) ^a	East of Hwy. 281
Youth Pheasant	6-7 Nov.	2(4)	Statewide
Youth Quail	6-7 Nov.	4(8)	Statewide
Pheasant	13 Nov. – 31 Jan.	4(16)	Statewide
Bobwhite	13 Nov. 31 Jan.	8(32)	Statewide
Prairie chicken * East and Northwest Units	20 Nov. – 31 Jan.	2(8)	Excludes area south of I-70 & west of hwy. 281
Prairie chicken * Southwest Unit	20 Nov. – 31 Dec.	1(4)	South of I-70 & west of Hwy. 281

^a Possession limit in parenthesis.

Figure 1. The 6 northern bobwhite management regions in Kansas.

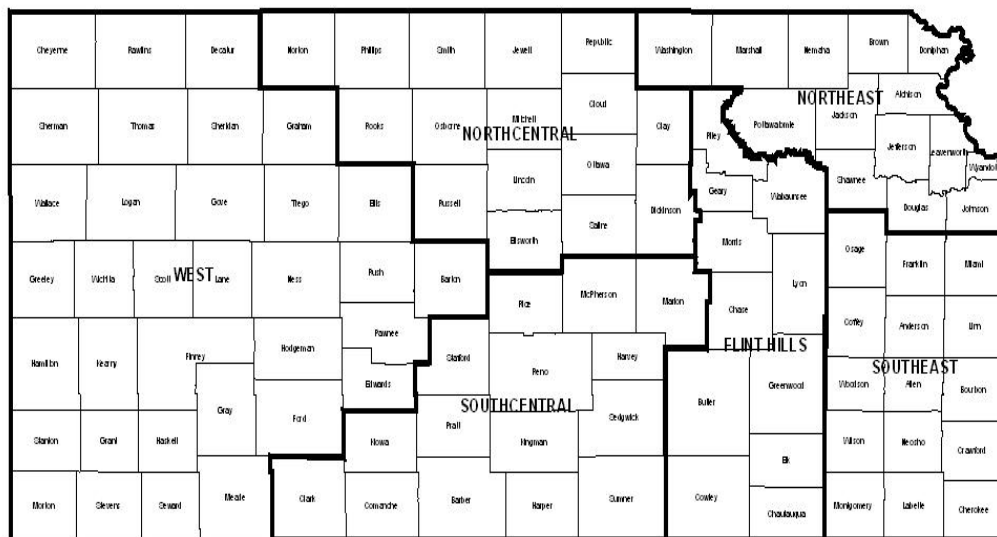


Figure 2. The statewide Kansas northern bobwhite production index (young:adult) derived from the July rural mail carrier survey, 1981-2009.

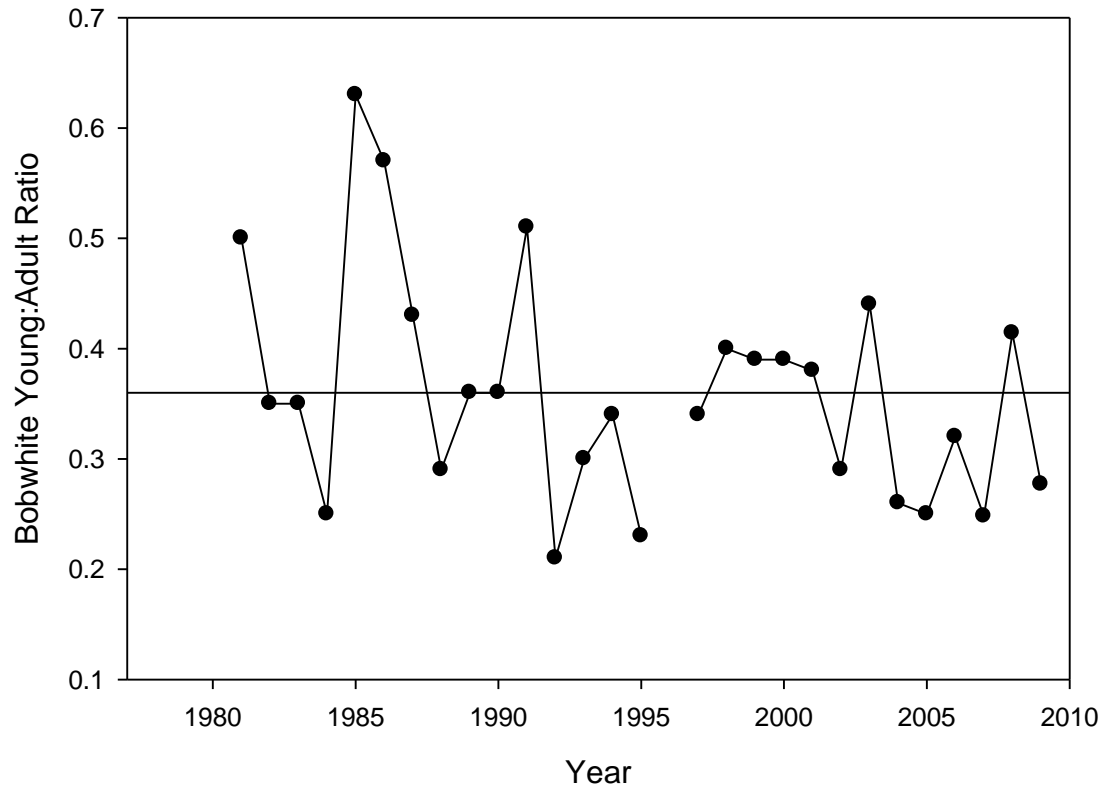


Figure 3. Northern bobwhite production indices (young:adult) derived from the July rural mail carrier survey for each of the 6 small game management regions in Kansas, 1981-2009.

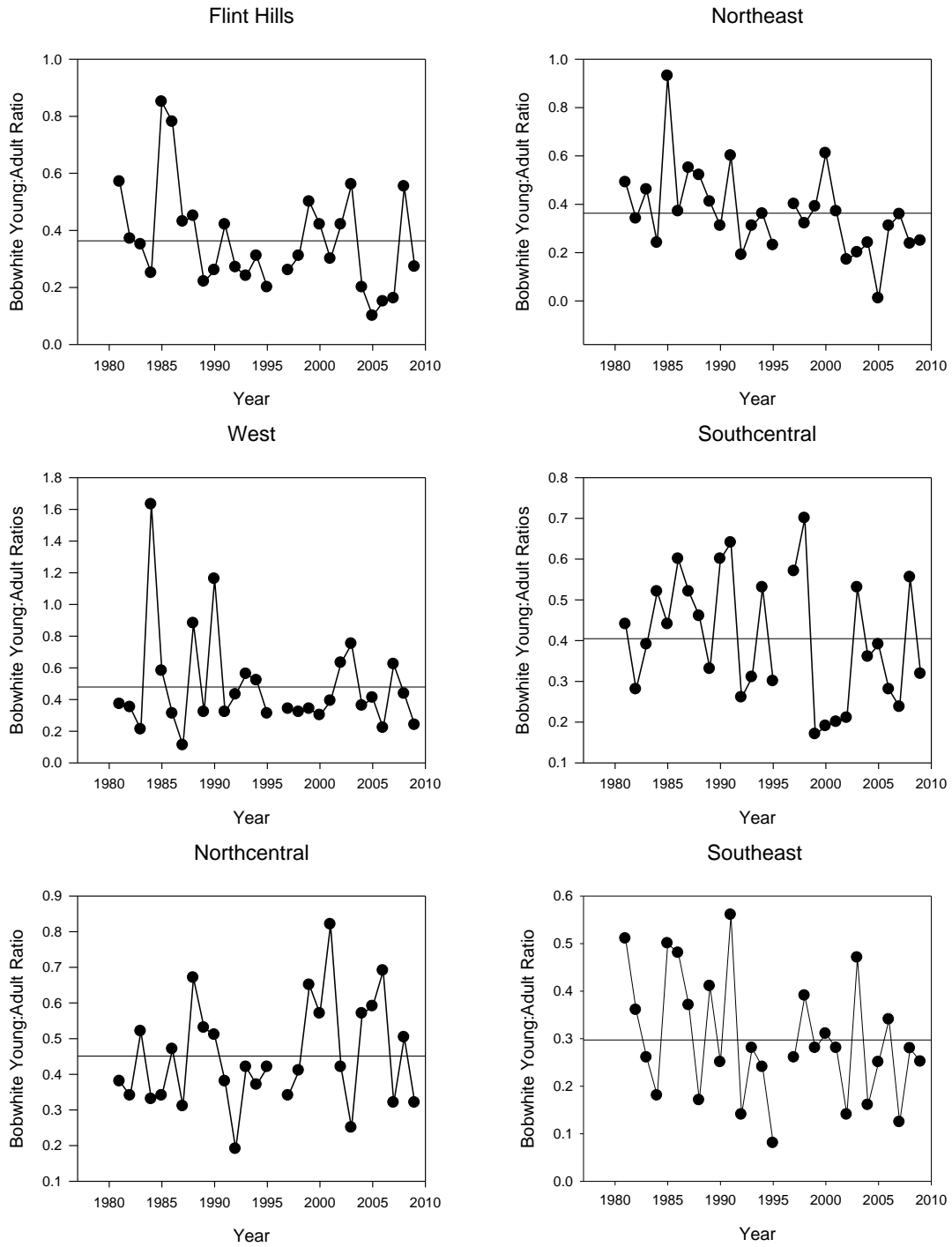


Figure 4. Average bobwhite brood size and estimated frequency distribution of hatching dates in Kansas derived from August roadside counts, 2009.

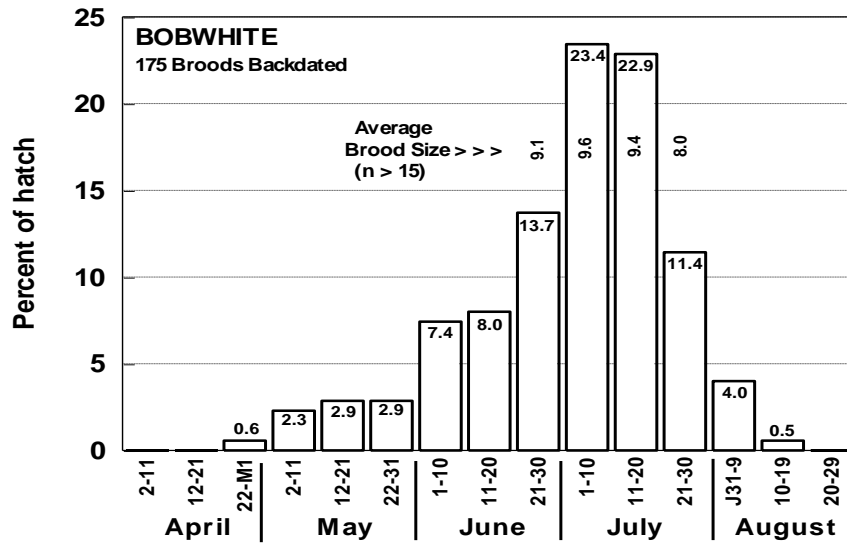


Figure 5. Trends in northern bobwhite abundance in Kansas as indexed by the June whistle count survey (birds/stop; 1998-2010), the April rural mail carrier survey (RMCS) (birds/100 mi. driven; 1963-2010), and estimated hunter harvest (millions; 1962-2009).

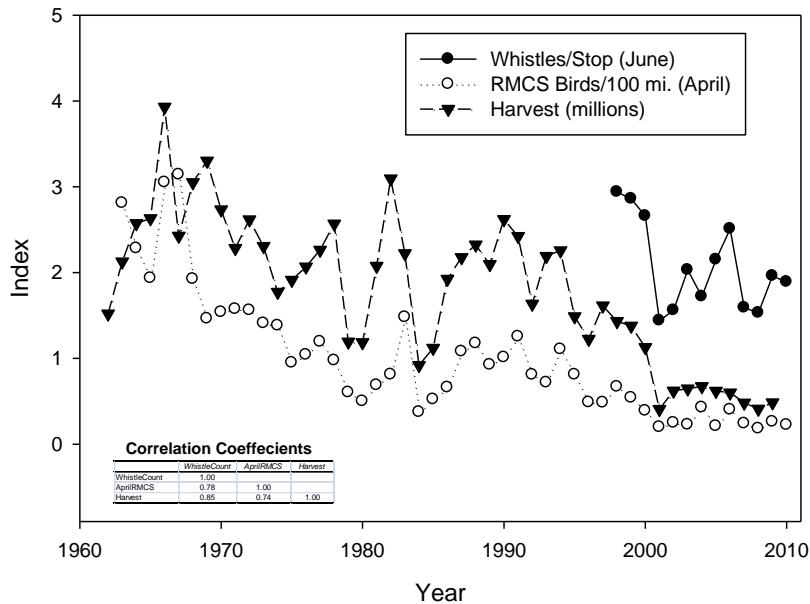
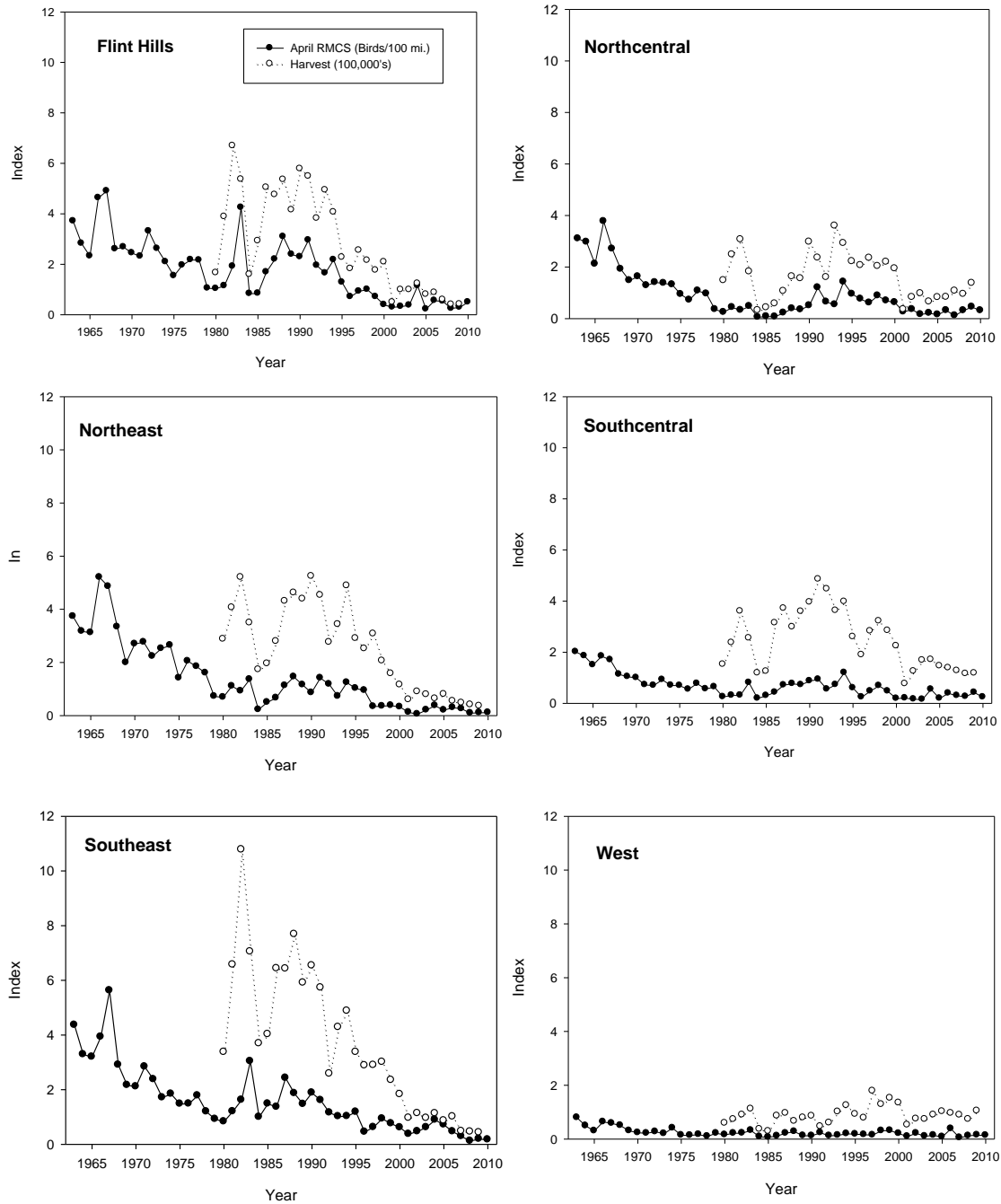


Figure 6. Regional estimates of hunter harvest (100,000's) and indices to bobwhite abundance derived from the April rural mail carrier survey (RMCS; birds/100 mi. driven).



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