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THE KENTUCKY WARBLER

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THE COVER

We thank Matthew Dzialak for the cover photograph of the juvenile Peregrine Falcon (Falco peregrinus), one of ten individuals hacked in the Red River Gorge Geological Area in 2002. Financial support for color cover provided by the Touchstone Energy Cooperatives.
In 1993, the Kentucky Department of Fish and Wildlife Resources (KDFWR) initiated efforts to restore the American Peregrine Falcon (Falco peregrinus anatum) as a nesting species in Kentucky. At that time, the anatum subspecies was federally endangered with no known breeding location in the Commonwealth. The program expanded in 2000 to include partnerships with the University of Kentucky (UK), the U.S.D.A. Daniel Boone National Forest (DBNF), and the Kentucky State Nature Preserves Commission (KSNPC). By 2003, 115 peregrines had been released in both urban and natural settings in Kentucky. Presently there are five known active peregrine nesting locations in the state and unpaired territorial males appear to occupy additional sites. In this paper we provide an overview of the recovery effort for the Peregrine Falcon in Kentucky.

History of Peregrine Falcons in the United States

The Peregrine Falcon is a medium-size raptor with nearly global distribution (Ratcliffe 1993). Peregrine populations have been the focus of research and conservation efforts in North America for more than four decades. These efforts emerged largely in response to the widespread extirpation of temperate peregrines in the post-World War II era (Hickey 1969) and evolved into recovery programs initiated in the mid-1970s (Cade et al. 1988). Habitat alteration, disturbance of eyries by egg collectors, and poaching contributed to the decline and extirpation of these populations (Ganier 1931, Hickey 1942, Bond 1946, Hickey 1969), but contamination by organochloride pesticides such as DDT and concomitant reproductive failure of nesting peregrines were even more devastating in their effects (Ratcliffe 1967, Hickey and Anderson 1968, Peakall 1976). Consequently, by the mid-1960s this falcon was virtually eliminated as a nesting species in the eastern United States, a region where more than 350 breeding pairs were thought to nest historically (Hickey 1942).

Efforts to restore peregrine populations in the U.S. included a ban on the use of DDT in 1972, federal listing of the species as endangered in 1975, and initiation of recovery projects by state agencies, private organizations, and raptor breeders (Ratcliffe 1993, Cade et al. 1996). Captive-produced peregrines were first released in the U.S. in 1974. By 1994, more than 4,600 individuals had been released as part of four regional programs: (1) The Peregrine Fund in the East; (2) The Raptor Center at the University of Minnesota in the Midwest and Great Lakes regions; (3) the Peregrine Fund in the West; (4) and the Santa Cruz Predatory Bird Research Group in the Pacific Northwest (Enderson et al. 1995, Cade et al. 1996). Concurrently, researchers in Canada released an additional 1,500 birds. While most of the falcons released in the eastern United States were of Rocky Mountain F. p. anatum descent, some were F. p. tundrius, F. p. pealei, F. p. brookei, F. p. peregrinus, and F. p. cassini, and a few were hybrids among subspecies. Some anatum populations were migratory, but those in southern portions of their distribution were non-migratory (Ganier 1934). Similarly, F. p. cassini exhibits migratory and non-migratory tendencies depending on latitude. F. p. pealei, F. p. brookei, and F. p. peregrinus are non-migratory, whereas F. p. tundrius is strongly migratory (White 1986, Redig and Tordoff 1993). Because peregrines hatched in Kentucky were genetically disparate, it was unclear how far and in what direction they might disperse after fledging and to what degree they might be sedentary versus migratory as adults. For this reason, a significant attempt was made to document the dispersal and migratory tendencies of reintroduced peregrines and their offspring.

As a result of recovery efforts, 160 known pairs of Peregrine Falcons occupied eyries from the Mississippi River eastward by the mid 1990s (Cade et al. 1996). The Arctic Peregrine Falcon (F. p. tundrius) was removed from the Endangered Species List in 1994, and the American Peregrine Falcon (F. p. anatum) was delisted in 1999 (U.S. Fish and Wildlife
Service 1999). However, recovery in the southeastern U.S. has progressed more slowly than in other regions. Of the recovery regions designated by the U.S. Fish and Wildlife Service, the southeast region supports the fewest breeding pairs (about 18), despite a record of >70 historical eyries (Dzialak et al. 2005a). In large part because of this deficiency, removal of *F. p. anatum* from the endangered species list occurred without unanimous support of scientists and managers (e.g., Cade et al. 1997, Pagel and Bell 1997).

**Peregrine Falcons in Kentucky**

Prior to the mid-1960s, Peregrine Falcons had not been confirmed nesting in Kentucky, but documented nest sites had been reported from adjacent locales including Reelfoot Lake, Lake County, Tennessee (Wilson 1942, Mengel 1965, Berger et al. 1969), the Wolfe River Gorge, Pickett County, Tennessee (Mengel 1965), and in the vicinity of Cumberland Gap [probably at White Rocks], Lee County, Virginia (Mengel 1965). Although confirmed breeding records were lacking, likely or possible nesting areas were described from along the Kentucky River in the early 1900s (Pindar 1924), along the Rockcastle River, Laurel County, up to 1939 (Mengel 1940, 1965), and among large cliffs of Powell and Wolfe counties in the late 1940s (Mengel 1965). Mengel (1965) described the likely historical breeding range as including rugged areas with cliffs along the Pine Mountain thrust fault along the Virginia line and within the western "Cliff Section" of the Cumberland Plateau; he also noted the possibility of city buildings and bridges being used in the Louisville area. Palmer-Ball (1996) included bottomland forests of far western Kentucky as likely part of the peregrine's historical breeding range.

Outside of the breeding season, Peregrine Falcons were sparingly reported at scattered locales across much of the state, mostly during migratory periods but occasionally during winter, often at or near large bodies of water (Mengel 1965). In years subsequent to the ban on DDT and the initiation of recovery projects in some midwestern states, Peregrine Falcon sightings began increasing. By the mid-1980s, several sightings were being reported each spring and fall season, but nesting remained unconfirmed until the mid-1990s.

**Recovery efforts: releases in urban and industrial areas, 1993-1999**

During the period 1993-1999, 82 peregrines were released at three urban and industrial hack sites in Kentucky. Thirty birds were released at the Vine Center Building in Lexington, Fayette County; 31 were released at the Kentucky Utilities E.W. Brown Generating Station near Burgin, Mercer County; and 21 were released at the Kentucky Utilities Ghent Station, Carroll County (Burford 1999). Human-made structures in urban or industrial settings were used as initial release sites because these areas typically supported abundant prey such as European Starlings (*Sturnus vulgaris*) and Rock Pigeons (*Columbia livia*) and because of the reduced levels of Great Horned Owls (*Bubo virginianus*), a potential predator. Human-made structures also met logistical needs, such as accessibility for daily feeding by hack-site attendants and public relations events including media coverage. Goals of this phase of the program included achieving high survival-to-dispersal rates, and, ultimately, reestablishing breeding locations in the state. Burford (1999) reported that nearly 78% of fledglings released at these locations survived to disperse. Predominant sources of mortality included collision with vehicles and buildings or entrapment in industrial structures (Burford and Yancy 1994). Although incidence of predation was low during this phase of the program, Burford (1996) reported three fledglings killed by a Great Horned Owl at the Mercer County site in 1995, and at least one falcon was lost to predation by a red fox (*Vulpes vulpes*) at the Carroll County site in 1999 (Burford 1999).

**Recovery efforts: releases on cliffs 2000-2003**

During the period 2000-2003, 33 young Peregrine Falcons were released among cliffs in the Red River Gorge Geological Area of DBNF, Menifee/Powell counties, and along the Kentucky River at Tom Dorman State Nature Preserve (SNP), Jessamine County. Efforts to
reintroduce the species in cliff habitats represented a novel phase of the program because research was a primary focus. Twelve individuals were released at a large rock arch near the junction of highways 77 and 715 in Menifee County in 2000; 16 were released at a large cliff ledge at the terminus of Tunnel Ridge Road in Powell County in 2001 and 2002; and 5 were released at Tom Dorman SNP in 2003. These release sites were chosen based on numerous criteria including habitat attributes, estimated prey base and predation risk, and potential for research opportunities (Dzialak et al. 2005a). As part of this phase, >900 hrs of observation on the behavioral ecology of reintroduced peregrines were obtained (Carter 2003). Dzialak (2003) monitored movement and dispersal and obtained >540 aerial telemetry locations on released individuals. Birds at DBNF perched frequently on pine (Pinus spp.) snags along cliff edges and oriented their movement within agricultural habitat west of DBNF, such as areas near the Mountain Parkway and the city of Stanton (Dzialak et al. 2005b). Individuals at Tom Dorman SNP tended to spend more time flying and less time perching, and they were relocated frequently along the Kentucky and Dix river corridors and near Lake Herrington. All falcons released at Tom Dorman SNP survived and dispersed; five released in the Red River Gorge Geological Area died before dispersal. It was difficult to determine the cause of mortality for those individuals, but we suspect that a bobcat (Lynx rufus) and a raccoon (Procyon lotor) were sources of mortality in 2001 and 2002, respectively. Using Soft Catch® padded foothold traps and Havahart® box traps (Woodstream Corp., Lititz, PA, 17543), we captured and removed a bobcat from the hack site in 2001, and we removed three raccoons from the hack site in 2002. We observed gray fox (Urocyon cinereoargenteus), red fox, timber rattlesnake (Crotalus horridus), copperhead (Agkistrodon contortrix), and vultures (both Coragyps atratus and Cathartes aura) scavenging quail carcasses provided as a supplemental food source, but these species were not known to be associated with fledgling mortality.

Survival and dispersal

Reintroduced peregrines generally spend several weeks near the hacking stations (i.e., on the post-fledging area) before dispersal (Sherrod et al. 1982). During this time they develop survival skills such as hunting and defensive behavior. Peregrines dispersing after spending too few days on the post-fledging area might not have sufficient hunting or defensive skills necessary for survival (Sherrod 1983). Generally, wild-produced peregrines and those hacked in urban areas remain on the post-fledging area longer than those hacked in cliff habitat. Sherrod (1983) reported that wild-produced young dispersed after spending 38-69 days on the post-fledging area. Wild-produced peregrines in Kentucky typically spent 36 days on the post-fledging area (Carter 2003). In contrast, peregrines hacked at urban sites in Kentucky spent an average of 37 days on the post-fledging area and those hacked in cliff habitat remained from only a few to 36 days, with most remaining 16-31 days (Burford and Yancy 1994, Burford 1996, 1999, Dzialak et al. 2005b). Young released at Tom Dorman SNP spent 27-36 days on the post-fledging area before dispersing, but a few birds released in the Red River Gorge Geological Area dispersed after having remained only a few days.

Barclay and Cade (1983) suggested that raptor hacking programs generally achieve 75% success. Burnham et al. (1988) estimated that about 81% of hacked peregrines survived at least 3 weeks. Typically, survival-to-dispersal among wild-produced peregrines is lower and has been reported to be 26-47% (Enderson 1969, Nelson 1988, Ratcliffe 1993, Vorisek 2005).

Barclay and Cade (1983) reported hacking success of 63%, 79%, and 83% for peregrines hacked on cliffs, towers, and urban sites, respectively. Other studies have demonstrated high survival among peregrines in urban areas (Kaufman et al. 2003), possibly because of the extensive prey resources available in these areas or because many urban areas are largely devoid of predators. Urban released peregrines also have a higher likelihood of being discovered and treated with medical care if they become injured than falcons fledged in more remote areas.
Survival-to-dispersal rates are easy to interpret and are appropriate to present in initial species recovery efforts, job performance reports or other public relations media, but this rate could misrepresent the actual contribution made to peregrine recovery. For example, survival-to-dispersal among peregrines released in cliff habitat in Kentucky was 85%, but there is a high probability that several premature dispersers lacked necessary survival skills and succumbed to starvation. Conversely, it is probably not accurate to assume that all premature dispersers die, particularly those individuals that may have remained on the post-fledging area for 10-13 days as opposed to just 2 or 3 days (Sherrod 1983). Some research suggests that individuals that disperse earlier may be in better physical condition than late dispersers (Belthoff and Dufty 1998, Willey and van Riper 2000). Powell et al. (2002) conducted the only other quantitative assessment of post-fledging survival in reintroduced peregrines. They estimated survival over a 10-wk post-fledging period to be 89%. Their success exceeded previous estimates and, to some extent, mirrored habitat-specific trends in success rates observed previously. The true contribution that hacking programs make to peregrine recovery is probably somewhere between best and worst case scenarios.

Assessing success of recovery

Success of Peregrine Falcon reintroduction must be assessed over broad spatial and temporal scales because peregrines traverse vast areas and often wander nomadically for several years before establishing nesting territories. It may be too early to fully assess Kentucky’s contribution to peregrine recovery, but it is clear that the status of the species in Kentucky and adjacent states has improved since the inception of the program. Since 1995, breeding locations have been established at five sites within the Ohio River corridor along the state's northern border (Vorisek 2005, Tordoff et al. 2004) as follows: 1) a complex of bridges at Louisville, Jefferson County, since at least 1995; 2) a utility stack at the Louisville Gas and Electric (LG&E) Station near Bedford, Trimble County, since 1999; 3) a utility stack at the Kentucky Utilities Ghent Station, Carroll County, since 2000; 4) the highway bridge between Russell, Kentucky and Ironton, Ohio, Greenup County, since 2001; and 5) the US 421 bridge at Madison, Indiana/Milton, Kentucky, Trimble County, since 2002. The nest site at Louisville has moved back and forth between at least two and perhaps three different bridges, and the makeup of the Louisville pair has changed dramatically with several known replacements of individual birds that have died or disappeared. The pair currently consists of a female hacked in the Red River Gorge Geologic Area, Powell County, in 2002, and an unknown male. The LG&E pair currently consists of a male that was hacked at a power plant near St. Louis, Missouri, in 1997, and a female that was wild-produced in Toledo, Ohio, in 1997. The pair at Ghent formerly included a male that had been hacked and subsequently took up residence there in 1997; it now includes a male that was wild-produced at LG&E in 2001 and a wild-produced female that was banded in Manitowoc, Wisconsin in 1999. Of the pair nesting at Russell, the female is a bird that was hacked in Toronto, Canada, in 1998 (Tordoff et al. 2002). The male currently at Milton was hacked at Ghent in 1997 (Vorisek 2005). During the period 2000-2004, the birds at these five locations produced 65 young with 49% of young surviving and dispersing (Vorisek 2005; Tordoff et al. 2001, 2002, 2003, 2004).

In addition to the five pairs noted above, at least three pairs have recently become established immediately adjacent to Kentucky along the Ohio River in Ohio: two at power plants at Cleves and Aberdeen, as well as one in downtown Cincinnati (Tordoff et al. 2003). Another pair may be present at a power plant at Rockport, Indiana (Tordoff et al. 2004). Finally, in addition to the several Kentucky-released peregrines that have established breeding locations within the state, at least three more have dispersed to nest in adjacent states: one at Indianapolis, Indiana; one at Lima, Ohio, and one at the above-noted power plant at Cleves, Ohio. Clearly, specific recovery efforts in various states have interacted with each other throughout the region. Although numerous human-made nesting sites appear to remain unoccupied throughout the Midwest, core areas of peregrine activity clearly
exist. Conspecific attraction among peregrines has resulted in the establishment of these high traffic nesting areas, often in habitat such as lakefronts and river corridors. In Kentucky, the Ohio River corridor currently represents the focus of nesting activity. As these areas have become occupied, unpaired or displaced individuals have slowly begun to occupy adjacent locations.

Nesting chronology and biology among the five nesting pairs have been relatively consistent. Pairs appear to remain resident on and defensive of territories throughout the year with courtship commencing in late winter. Clutches have been typically completed in late March to early April with hatching occurring most frequently during the latter half of April. Young usually fledge from late May to mid-June. Clutch size has typically consisted of four eggs, although only two or three sometimes hatch.

In addition to known nesting birds, unpaired peregrines have been observed in several locations in Kentucky. Establishment of defended territories by males is a promising step towards the emergence of additional breeding locations. Since 1998, an unpaired male has been observed in Lexington, Fayette County. Little is known about this individual, but it has been observed frequently perching in the downtown district where it preys on European Starlings and Rock Pigeons (Royce 2002). The past two years (2004 and 2005), a female has also been seen in downtown Lexington with the male but no nest site has been found (Vorisek 2005). KDFWR has installed several nest boxes on downtown buildings over the years, but to date they have not been occupied. Peregrines also have been observed occasionally at the Cynergy East Bend Power Plant, Boone County, and in cliff habitat near the Red River Gorge Geologic Area, Powell/Menifee counties (Vorisek 2005). In 2003, a male established a territory at the terminus of Tunnel Ridge Road in the Red River Gorge following its release at that site the previous year. KDFWR personnel were unable to locate this individual in 2004, but considering the extent of available habitat and continued sightings of peregrines there by reputable biologists, we suspect that birds remain in the area.

About 75% of reintroduced peregrines in the Midwest use human-made structures for nesting (Tordoff et al. 2004). Currently, all five of Kentucky’s nesting pairs use human-made structures, and nest boxes installed by KDFWR are used at two of these locations. The significance of nest boxes cannot be overstated in terms of current nest productivity. Two of the most productive sites—Ghent and Trimble counties—did not become successful until nest boxes were installed. Thus, it appears that nest box maintenance will continue to be critical in maximizing nesting success until cliff nesters become established.

Recently, cliff habitats have become occupied in the Midwest; for example, in 2000, five pairs established territories on Mississippi River cliffs where a year earlier there were none (Tordoff et al. 2000). We anticipate that a similar trend of occupancy may also occur in Kentucky, with human-made structures occupied first followed by cliff habitats. Also, given the high survival among Peregrine Falcons released in Kentucky and current trends in the Midwest, we suspect that the local population should continue to increase. Cliffs along the Kentucky River and in the Red River Gorge area could be the first to be occupied because of their proximity to known sites. Another promising location might be Golden Eagle Cliff in McCreary County because of its size and its proximity to habitats that support abundant prey such as Lake Cumberland. We encourage continued vigilance among wildlife enthusiasts in discovering newly established eyries at these locations and throughout Kentucky.

The year 2003 marked the final year of the release-phase in Kentucky, but KDFWR continues to monitor Peregrine Falcon status in the state. In 2003, a cooperative federal and state effort was initiated to monitor peregrine populations nationwide pursuant to section 4(g)(1) of the Endangered Species Act (U.S Fish and Wildlife Service 2003). The plan calls for five monitoring periods, conducted at three-year intervals, from 2003 to 2015. KDFWR is participating in this effort and will be gathering information on territory occupancy, new-
ly established territories, nest success and productivity at existing eyries, and potential threats of contamination.

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WINTER ABUNDANCE OF NORTHERN HARRIERS, SHORT-EARED OWLS, AND OTHER RAPTORS ON RECLAIMED GRASSLANDS IN WEST-CENTRAL KENTUCKY

Mark Vukovich and Mark Monroe

Introduction
Grasslands are among the most threatened habitats in North America (Jones and Bock 2002), and many grassland bird populations are declining at rates exceeding those of forest species (Herkert 1994). Two species of grassland raptors, Short-eared Owl (*Asio flammeus*) and Northern Harrier (*Circus cyaneus*), have been classified as species of national management concern by the U.S. Fish and Wildlife Service (USFWS 1987). Short-eared Owl is listed because of current population declines and Northern Harrier because of dependence on rare and vulnerable habitats. During the past 35 years, Short-eared Owls and Northern
Harriers have declined at rates averaging 0.7% and 4.4% per year, respectively, throughout their North American breeding ranges (Sauer et al. 2001). Investigators have attempted to determine the causes for these declines, and available data suggest that conversion of grasslands to croplands, disrupted fire regimes, and fragmentation of remaining grassland habitats have been important factors (Melvin et al. 1989, Serrentino 1992). In Kentucky, Short-eared Owl is considered rare to locally uncommon in winter and is classified as endangered as a breeding species (Palmer-Ball 2003, KSNPC 2001); Northern Harrier is considered an uncommon to locally fairly common winter resident and threatened as a breeder (Palmer-Ball 2003, KSNPC 2001).

Although native grassland habitats were widespread across large portions of southern and western Kentucky at the time of European settlement, all but a few tiny patches have been converted to agricultural use and settlement. However, certain human activities and uses have created habitats that in some ways mimic native grasslands, leading to their use by grassland birds. In fact, current reclamation practices on surface mines have produced some extensive areas of grassland in west-central and eastern Kentucky.

Previous research results have indicated that Short-eared Owl, Northern Harrier, and other species of raptors use reclaimed surface mines in Kentucky during both the non-breeding and breeding seasons (Clay 1989, Palmer-Ball 1996); however, no comprehensive effort has been focused on determining the extent to which the reclaimed mine areas are used by raptors during the non-breeding season or about the suitability of these areas as raptor habitat. Although several inherent biases (e.g., weather, species detectability, perch availability along roads, observer expertise) have raised concerns about the reliability of road surveys (Millsap and LeFranc 1988), this technique can be effective in determining abundance and long-term population trends of raptors over large areas.

The objectives of this study were (1) to determine the relative abundance of Northern Harriers, Short-eared Owls, and other raptors using an area dominated by reclaimed mines in west-central Kentucky in winter and (2) to compare raptor abundances with other regional studies.

**Study site**

This study took place in Muhlenberg and Ohio counties in west-central Kentucky, and focused on the Peabody Wildlife Management Area (Peabody WMA). The Peabody WMA includes 25,000 ha of which most is reclaimed coal-mined land. At the time this study was conducted, the WMA was divided into six units: the Ken Hopewell and Homestead units in Ohio County, and the Gibraltar, Sinclair, Riverqueen, and Vogue units in Muhlenberg County. The Ken Hopewell and Homestead units consisted primarily of grasslands and herbaceous vegetation with scattered woodlots. The Sinclair Unit consisted mainly of open grassland and herbaceous vegetation with scattered patches of shrubs. The Gibraltar unit consisted primarily of open grasslands (adjacent to private croplands), but remained an active mine and closed to public access. The Riverqueen and Vogue units included both forested and open habitats. The open areas of the Peabody WMA consisted primarily of non-native vegetation, including sericea (Lespedeza cuneata) and fescue (Festuca sp.), but mixed with native vegetation like switchgrass (Panica virgatum), Indian current (Symphoricarpos orbiculatus), and blackberry (Rubus spp.). A number of ponds were also present on the Peabody WMA, and the area was accessible by a network of gravel roads. Lands outside or adjacent to the Peabody WMA but covered by this study consisted primarily of rural farmland including tilled fields, hayfields, and pastures, as well as woodlands, both upland and floodplain.

**Methods**

*Field surveys and general data gathering*

Populations of diurnal raptors within the study area were monitored using road surveys (Craighead and Craighead 1956, Fuller and Mosher 1987). Data were taken from 17 winter
season (defined herein as January through March) road surveys in a more comprehensive
data set of road surveys conducted continuously during the period from 4 January 2002
through 25 July 2003. The survey route was approximately 70.7 km in length and was
selected for the purpose of covering as much of the Peabody WMA as possible in one
relatively direct route. Approximately 42.5 km (60%) of the route passed through the
Peabody WMA, while 28.2 km (40%) passed through surrounding private lands. Surveys
were conducted at least twice a month, and all were conducted during the period from
1000-1700 CST on days with little or no precipitation and winds less than 20 kph. During
surveys, the vehicle was typically driven at a speed of 20-30 kph where possible. Periodic
stops were made to identify distant individuals and at a few prime locations to briefly scan
for birds. Binoculars (10 x 40 and 8 x 42) and spotting scopes (20 - 60 X) were used to aid
in identification. For each raptor observed, the time, odometer reading, habitat and, when
possible, species, sex, and age were noted. The area within a 50 m radius of where a raptor
was observed perched or in flight was categorized as tall grass (>50% of the area with grass
or other herbaceous vegetation >0.5 m high), short grass (>50% of the area with grass or
other herbaceous vegetation <0.5 m high), agricultural land (>50% of the area had been
tilled or grazed), scattered shrub (shrubbs covering >50% of the area), woodlot (>50% of the
area with trees including woodlot edges), wetland (over open water or within 10 m of
water's edge), or roadside edge (<10 m from a road). In addition, in order to assess habitat
availability, we drove the survey route and stopped about every 0.75 km (N = 96 points)
and determined the dominant (>50%) habitat type at each location.

Because Short-eared Owls are largely crepuscular during the winter (Clark 1975), road
surveys conducted during daylight hours did not produce accurate estimates of their
populations. Therefore, a concerted effort was made to locate all diurnal roost sites used by
these owls on the Peabody WMA and to count all owls present at those roosts. Roost sites
used in previous years were checked, as were other apparently suitable sites, particularly
areas where owls were observed foraging regularly. Incidental observations of Short-eared
Owls made by the authors and reported by other observers were also used in estimating owl
populations. Counts of owls were made during the periods from January through March

Data Analysis

Data collected during the road surveys were used to determine the distribution and
abundance of raptors on the Peabody WMA throughout the year (Fuller and Mosher 1987).
Percentages and totals of observed species, habitats, and behaviors were determined for
raptors both on and off the Peabody WMA. Because the number of surveys conducted
during each month differed in 2002 and 2003, means were used for comparisons among
months. Abundances were calculated as the number of individuals recorded divided by dis-
tance traveled multiplied by 100 (i.e., raptors/100 km). This same measure was calculated
from selected publications for comparison with this study.

For the determination of habitat availability, dominant habitat types were identified
using the maximum transect width for the 96 points along the route. The maximum transect
width was calculated by determining the maximum width a raptor would have been visible
along each side of the road. For example, at a typical open area along the route, the maxi-
mum transect width was about 600 m (i.e., 300 m on both sides of the road). Then we added
50 m (radius of habitat estimation for a raptor) to both sides of the road. The result was a
700 m diameter circle (with the vehicle as the center) in which we estimated the dominant
habitat type. Percentages of dominant habitat types were then calculated. Chi-square tests
were used to examine possible non-random use of habitats between raptor species (SAS
Institute 1989). We used a Fisher's Exact test to examine the difference between habitats on
and off the Peabody WMA (SAS Institute 1989). Data were considered significant at p<
0.05.
Results

Road surveys and roost censuses

Table 1 summarizes the results of road surveys during the winter (January through March) in 2002 and 2003. Seventeen surveys were conducted and 1,040 individuals of 11 species of raptors were observed. The mean linear density was 86.5 raptors/100 km on the survey route with similar numbers observed in 2002 (85.8 indivs/100 km; 10 surveys) and 2003 (87.4 indivs/100 km; 7 surveys). In both 2002 and 2003, the greatest number of raptors was observed during February (Figure 1). Raptor abundance as measured by linear density was remarkably higher on the Peabody WMA (117.6 indivs/100 km) than on surrounding private lands (39.8 indivs/100 km). Within the WMA, the Sinclair Unit had the highest diversity and linear density of raptors in winter. More species of raptors (8) were observed on the Sinclair Unit than on any other unit. Similarly, a higher linear density (178.0 indivs/100 km) was observed on the Sinclair Unit than on other units (99.9 indivs/100 km).

The Northern Harrier was the second most frequently observed raptor during winter road surveys (342 individuals; 32.9% of total). An average of 45.9 harriers/100 km was observed on the Peabody WMA as compared to only 2.3 harriers/100 km on adjacent lands. Peak numbers of Northern Harriers were observed in February 2002 and March 2003. Most harriers identified were adults (166 of 342, or 48.5%), with adult males (98 of 166, or 59.0%) observed more often than adult females (68 of 166, or 40.9%). Only 27 juveniles were identified, and 149 individuals were not seen well enough to determine age and/or sex. Numbers of harriers at a communal roost on the Sinclair Unit were highest in March in both 2002 (25) and 2003 (23).

Although only two Short-eared Owls were observed during surveys, additional attempts to locate owls by locating diurnal roosting sites were made, specifically on the Peabody WMA. Based on those efforts, it was estimated that up to 27 Short-eared Owls were present in 2002 (all on the Sinclair Unit), while as many as 28 individuals were present in 2003.

Habitat Use

Woodlot and tall grass habitats were the most abundant habitats along the survey route (Table 3). Distribution of Northern Harriers along the survey route was non-random ($\chi^2 = 1416.5, df = 7, p < 0.0001$), with harriers observed most frequently in areas with tall grass (272 of 342, or 79.5%). In addition, habitat use by Red-tailed Hawks (Buteo jamaicensis) was also non-random ($\chi^2 = 540.8, df = 7, p < 0.0001$), with these hawks observed most often in tall grass habitats (181 of 410, or 44.1%). American Kestrel (Falco sparverius) presence in habitats along the survey route was non-random ($\chi^2 = 228.8, df = 6, p < 0.0001$), with kestrels also frequently observed in tall grass habitats (76 of 180, or 42.2%), as well as roadside edges (62 of 180, or 34.4%). Habitats on the Peabody WMA differed significantly compared to off the WMA (one sided, Fisher's Exact, df = 5, p < 0.0001). Tall grass habitats occurred more frequently on the Peabody WMA (22 of 55 points, or 42.2%) compared to off the Peabody WMA (1 of 41 points, or 1.04%).

Discussion

Abundance of raptors for this study as measured by linear density was among the highest reported in the east-central United States (Table 2). Andres (1994) studied a small, but raptor-rich area in Clark County, Kentucky, and reported 108.4 individuals/100 km. Sferra (1982) reported much lower numbers of wintering raptors in Madison County, Kentucky, with a mean linear density of 24.6 indivs/100 km. Similarly, Bildstein (1987) reported lower densities in central Ohio (8.4 indivs/100 km). Although overall raptor abundance was lower in Tennessee, linear density of American Kestrels (11.3 indivs/100 km) was relatively comparable to our survey route (Stedman 1988). In contrast to those other studies, winter abundance of Northern Harriers on our survey route (28.5 indivs/100 km) was the highest that has been reported for the region (Table 2).
Table 1. Summary of diurnal raptor road surveys, Muhlenberg and Ohio counties, Kentucky, during the winters of 2002 and 2003.

<table>
<thead>
<tr>
<th>Species</th>
<th>Number observed</th>
<th>Percentage of total observed</th>
<th>Avg. # of individuals/100 km</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red-tailed Hawk <em>Buteo jamaicensis</em></td>
<td>410</td>
<td>39.4</td>
<td>34.1</td>
</tr>
<tr>
<td>Northern Harrier <em>Circus cyaneus</em></td>
<td>342</td>
<td>32.9</td>
<td>28.5</td>
</tr>
<tr>
<td>American Kestrel <em>Falco sparverius</em></td>
<td>180</td>
<td>17.3</td>
<td>15.0</td>
</tr>
<tr>
<td>Red-shouldered Hawk <em>Buteo lineatus</em></td>
<td>38</td>
<td>3.7</td>
<td>3.2</td>
</tr>
<tr>
<td>Rough-legged Hawk <em>Buteo lagopus</em></td>
<td>29</td>
<td>2.8</td>
<td>2.4</td>
</tr>
<tr>
<td>Sharp-shinned Hawk <em>Accipiter striatus</em></td>
<td>11</td>
<td>1.1</td>
<td>0.9</td>
</tr>
<tr>
<td>Cooper's Hawk <em>Accipiter cooperi</em></td>
<td>10</td>
<td>&lt;1.0</td>
<td>0.8</td>
</tr>
<tr>
<td>Unidentified <em>Buteo</em></td>
<td>9</td>
<td>&lt;1.0</td>
<td>0.7</td>
</tr>
<tr>
<td>Merlin <em>Falco columbarius</em></td>
<td>5</td>
<td>&lt;1.0</td>
<td>0.4</td>
</tr>
<tr>
<td>Osprey* <em>Pandion haliaetus</em></td>
<td>3</td>
<td>&lt;1.0</td>
<td>0.2</td>
</tr>
<tr>
<td>Short-eared Owl <em>Asio flammeus</em></td>
<td>2</td>
<td>&lt;1.0</td>
<td>0.2</td>
</tr>
<tr>
<td>Golden Eagle <em>Aquila chrysaetos</em></td>
<td>1</td>
<td>&lt;1.0</td>
<td>0.1</td>
</tr>
<tr>
<td>Total</td>
<td>1040</td>
<td>100.0</td>
<td>86.5</td>
</tr>
</tbody>
</table>

* March observations of returning migrants/summer residents.

Table 2. Linear density of raptors, Northern Harrier (NOHA) density, and number of species taken from published road surveys (including this study) in the east-central United States during winter.

<table>
<thead>
<tr>
<th>Study</th>
<th>Location</th>
<th>Raptors/100 km</th>
<th>NOHA/100 km</th>
<th>Number of species</th>
<th>Total distance traveled (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andres (1994)</td>
<td>Central KY</td>
<td>108.4</td>
<td>1.4</td>
<td>5</td>
<td>340.1</td>
</tr>
<tr>
<td>Present study</td>
<td>West-central KY</td>
<td>86.5</td>
<td>28.5</td>
<td>11</td>
<td>1201.9</td>
</tr>
<tr>
<td>Sferra (1982)</td>
<td>Central KY</td>
<td>24.6</td>
<td>0.4</td>
<td>7</td>
<td>2350</td>
</tr>
<tr>
<td>Stedman (1988)</td>
<td>Statewide TN</td>
<td>19.5</td>
<td>0.3</td>
<td>9</td>
<td>8432</td>
</tr>
<tr>
<td>Bildstein (1987)</td>
<td>Central OH</td>
<td>8.4</td>
<td>1.8</td>
<td>9</td>
<td>4592.4</td>
</tr>
</tbody>
</table>
Figure 1. Winter abundance of raptors by month.

Table 3. Proportion of dominant habitats and observations of Red-tailed Hawks (RTHA), Northern Harriers (NOHA), and American Kestrels (AMKE) in different habitats along the survey route through Muhlenberg and Ohio counties, Kentucky, January – March 2002 and 2003.

<table>
<thead>
<tr>
<th>Habitat</th>
<th>Occurrence of dominant habitats at random survey points (96)</th>
<th>RTHA observations (410) by dominant habitat</th>
<th>NOHA observations (342) by dominant habitat</th>
<th>AMKE observations (180) by dominant habitat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Woodlot</td>
<td>47.9%</td>
<td>25.9%</td>
<td>2.3%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Tall grass</td>
<td>24.0%</td>
<td>44.1%</td>
<td>79.5%</td>
<td>42.2%</td>
</tr>
<tr>
<td>Agricultural land</td>
<td>12.5%</td>
<td>3.4%</td>
<td>1.1%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Short grass</td>
<td>10.4%</td>
<td>4.4%</td>
<td>5.0%</td>
<td>16.1%</td>
</tr>
<tr>
<td>Scattered shrubs</td>
<td>3.1%</td>
<td>3.4%</td>
<td>&lt;1.0%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Wetland</td>
<td>2.1%</td>
<td>3.2%</td>
<td>2.6%</td>
<td>&lt;1.0%</td>
</tr>
<tr>
<td>Roadside edge</td>
<td>0.0%</td>
<td>15.1%</td>
<td>7.9%</td>
<td>34.4%</td>
</tr>
<tr>
<td>Unknown</td>
<td>--</td>
<td>&lt;1.0%</td>
<td>&lt;1.0%</td>
<td>--</td>
</tr>
</tbody>
</table>
Variation in abundance of both all raptors and Northern Harriers between study sites shown in Table 2 was possibly due to differences in dominant habitats and levels of human use. Populations of meadow voles (*Microtus pennsylvanicus*), a favorite prey item of grassland raptors, typically are more abundant in areas with higher vegetative cover (Bart 1977). Bildstein (1987) had more observations of Northern Harrier in fallow fields than in cropland. Andres (1994) recorded overall abundance of raptors similar to the overall abundance recorded in our study, but his predominant species were Red-tailed Hawk and American Kestrel with a much smaller presence of Northern Harrier. This was likely due to the abundance of agricultural lands, the favored habitat for Red-tailed Hawk and American Kestrel, along his survey route. Moreover, while "tall vegetation" was also a dominant habitat in his study area, the term was defined differently to include shorter vegetation than our definition and consisted primarily of lightly grazed pastures rather than idle grasslands. Based on our results, harriers were observed in areas with a mixture of ungrazed tall and short grasses or other herbaceous vegetation, a type of habitat that is characteristic of the reclaimed mine land dominating the Peabody WMA, particularly the Sinclair Unit. It should be noted, however, that habitat differences alone may not be responsible for variation in raptor abundance between various studies. A combination of factors (e.g., year-to-year variation in numbers of raptors, prey availability, weather conditions, etc.) may also cause significant differences.

Range-wide distribution and abundance of Short-eared Owls during the winter are poorly known, but based on Christmas Bird Count (CBC) data, populations in most areas of the United States appear to be low (Sauer 1997) and in some states (e.g., Illinois and Iowa) declining (McKay et al. 2001). Counts of Short-eared Owls on the Peabody WMA during the winter have been among the highest reported in the United States. For example, the highest number reported for all CBCs published by the National Audubon Society (NAS) in 2002 and 2003 was 19 at the Killdeer Plains Wildlife Area in Ohio (NAS 2002) and 29 at the Hulah Reservoir in Oklahoma (NAS 2003), respectively. Historically, the Kentucky Ornithological Society’s Paradise CBC, which includes much of the Peabody WMA, has recorded good numbers of Short-eared Owls with an obvious peak in 1990 of 137 individuals (Ferrell 1991). We believe that our winter roost counts of Short-eared Owls in the study area in 2002 and 2003 may have under-represented the total population. For example, observers participating in the 2002 Paradise CBC, which included much of the study area, reported 37 Short-eared Owls (Ferrell 2002).

The Peabody WMA is an important wintering area for a large and diverse population of raptors in Kentucky. The higher numbers of raptors, especially Northern Harriers, on the WMA relative to adjacent areas suggests that this reclaimed mine land may indeed be supporting a density of winter raptors comparable to that of historical grassland habitats. Although we did not survey for Short-eared Owls off the Peabody WMA, the above-noted CBC data and anecdotal observations in Kentucky and elsewhere suggest reclaimed mine areas are also important wintering sites for this species. It should be noted, however, that the overall level of success of grassland raptors on reclaimed mine areas is unclear. For example, reproductive success of Northern Harriers nesting on the Peabody WMA (21.7%) was among the lowest recorded in North America (Vukovich 2004) and the number of immature birds detected on our winter roadside surveys (27) was lower than expected. In addition, hunting success of Northern Harriers (7%) and Short-eared Owls (10.9%) were lower than most reports (Vukovich 2004). Although raptors like Red-tailed Hawk and American Kestrel have shown a great deal of adaptability to human activities and development, grassland raptors do not appear to have been as successful. Frequent mowing, grazing, and other uses all appear to reduce the quality of human-created and human-altered grasslands for raptors. In contrast, management activities like prescribed burning or infrequent mowing, which result in the perpetuation of an early successional state of vegetation dominated by herbaceous species and shrubs, are probably creating good conditions for Northern Harriers and Short-eared Owls on the Peabody WMA. In Illinois, these raptors
used various habitat types selectively depending on the nature of management activities and frequency of disturbance (Herkert et al. 1999), suggesting that management regimes are very important to sustaining viable grassland raptor populations. Therefore, review of current management practices on reclaimed mine lands and development of conservation strategies for grassland raptors in Kentucky are needed to maintain current grassland habitats and to supplement further grassland habitat loss.

Acknowledgments

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Literature Cited


Winter Season 2004-2005

The winter season of 2004-2005 was characterized by variable temperature, with several abnormally warm periods interspersed with short bouts of below-average readings. The season's most severe outbreak of cold weather occurred during the last week of December; in fact, the minimum reading at Louisville for the winter was 2°F on Christmas morning. Overall, precipitation was near normal, but significant snowstorms were absent. A brief period of above-average precipitation occurred in early January, resulting in the formation of some water at the transient lakes in southern Warren County, but it did not last long enough to allow them to persist for more than a few weeks.

Rarity highlights of the season included a state-first Bullock's Oriole, a state-second Common Ground-Dove, and a likely returning Spotted Towhee. As expected based on the number of fall reports, a less active winter for western hummingbirds occurred. Winter finches and Red-breasted Nuthatches ended up occurring in relatively small numbers statewide. A remarkable scarcity of hard and soft mast in at least some portions of the state resulted in much reduced numbers of some woodpeckers, Blue Jays, Cedar Waxwings, and Yellow-rumped Warblers.

Publication of any unusual sightings in the seasonal report does not imply that these reports have been accepted as records for the official checklist of Kentucky birds. Observers are cautioned that records of out-of-season birds and all rarities must be accompanied with good details or documentation for acceptance. Documentation must be submitted to the Kentucky Bird Records Committee (KBRC). Decisions regarding the official Kentucky list are made by the KBRC and are reported periodically in The Kentucky Warbler.
Abbreviations – Miscellaneous: county names appear in italics; when used to separate dates, the “/” symbol is used in place of “and”; “ph.” next to an observer’s initials indicates that the observation was documented with photograph(s); “vt.” next to an observer’s initials indicates that the observation was documented on videotape; “w.” next to an observer’s initials indicates that written details were submitted with the report; ad. = adult; imm. = immature; juv. = juvenile; yg. = young; KDFWR = Ky Department of Fish and Wildlife Resources. Place names: Ballard = Ballard WMA, Ballard; Barkley Dam = Barkley Dam, Lyon/Livingston; Barren = Barren River Lake, Allen/Bourbon (unless otherwise noted); Bernheim Forest = Bernheim Forest, Bullitt/Nelson; Blood River = Blood River embayment of Kentucky Lake, Calloway; Chaney Lake = Chaney Lake, Warren; Cooley’s Pond = Cooley’s Pond, Wayne; DBNF = Daniel Boone National Forest; Gibraltar = Peabody Gibraltar mine, Muhlenberg; Griffin Park = Griffin Park, Warren; Homestead = Homestead Unit Peabody WMA, Ohio; Jonathan Creek = Jonathan Creek embayment of Kentucky Lake, Marshall; Ken Hopewell = Ken Hopewell Unit Peabody WMA, Ohio; Ky Dam = Kentucky Dam, Livingston/Marshall; Ky Lake = Kentucky Lake, Marshall (unless otherwise noted); Kuttawa = Lake Barkley at Kuttawa, Lyon; Lake Barkley = Lake Barkley, Livingston/Lyon/Trigg; LBL = Land Between the Lakes National Recreation Area, Lyon/Trigg; Long Point = Long Point Unit Reelfoot NWR, Fulton; lower Hickman bottoms = lower Hickman bottoms, Fulton; McElroy = McElroy Lake, Warren; Murray = Murray, Calloway; Peabody = Peabody WMA, Muhlenberg/Ohio; Petros Pond = Petros Pond, Warren; Sauerheber = Sauerheber Unit Sloughs WMA, Henderson; Shaker Mill = Shaker Mill, Warren; Sinclair = Sinclair Unit Peabody WMA, Muhlenberg; Surrey Hills Farm = Surrey Hills Farm, Jefferson; Waitsboro = Waitsboro Recreation Area, Lake Cumberland, Pulaski; Walton’s Pond = Walton’s Pond, Warren; WMA = Wildlife Management Area.

Mute Swan – there were a number of reports this season, likely as a result of the coldest temperatures in a few years: 2 continued from the fall season near Prospect, Jefferson, to 22 January (J&PB, BBC); 1 in Bourbon 5 December (SM); a juv. at Owensboro, Daviess, in mid-December (DA); 6 at Bernheim Forest, Bullitt, 21 December (MS); an adult at Ballard 21 December (BP) – 15 January (SR); 1 above Meldahl Dam 26 December (LM); 21 at Cooley’s Pond 27 December (ph.RD et al.); 6 at Petros Pond 28 December-8 February (ph.DR et al.); 2 at Ken Hopewell 2 January (MS, EH) with 8 there 9 January (BP, MS); 10 that moved back and forth between McElroy and Chapman’s Pond, Warren, 16 January-14 February (ph.DR et al.); 11 on Lake Herrington, Boyle/Garrard, 25 January (B&MC) with perhaps some of the same in a flock of 12 on Lake Herrington, Mercer/Garrard, 30 January (BF, fide SV); up to 14 (perhaps some of the same from Lake Herrington), se. of Danville, Boyle, in late February (ph.WC); and 1 at Owsley Fork Lake, Madison, 28 January (PH).

Tundra Swan – the flock at Sauerheber numbered up to 27 birds in early January (MMr); also reported were 2 immns. at Cooley’s Pond 27 December (ph.RDn et al.) and an imm. at London, Laurel, 24-26 January (GC, ph.RDn).

Greater White-fronted Goose – as has become the norm, large numbers wintered at three w. Kentucky locales represented by the following peak counts: 2000 at Long Point 18 December (KL, NM et al;); with 1000 still in the vicinity 23 February (ME et al.); 2050 at Sauerheber 6 January (MR); and 900-1000 at Ballard 19 December (CW); also reported were a few in s. Warren 7 December (DR); 9 at Stearns 11 December (RDv, KOS); 1 at Conley Bottom marina, Lake Cumberland, Wayne, 12 December (RDn); and 2 near Oakville, Logan, 29 December (DR).

Ross’s Goose – the s. Ohio bird that has been seen off-and-on for a few years was present 11 December (RDv, KOS) but not later, suggesting that something unfortunate happened to it; an impressive count of 54 was made at Long Point 18
December (KL, NM, MGr) followed by a count of 37 near Open Pond, Fulton, in early February (JWi); also reported were at least 3 at Ballard 21 December (BP, SR); an ad. at Griffin Park 1 January (DR, CH); an ad. at Camp Ernst Lake, Boone, 17 January (LM); an imm. at Griffin Park 18 January (DR); and 7 in w. Fulton 29 January (HC, ME).

Snow Goose - peak counts at the usual wintering locales included 3000 at Long Point 18 December (KL, NM et al.) and 8000 in w. Fulton 29 January (HC, ME); 40,000-50,000 at Ballard 26 December (CW); and 650 at Sauerheber 19 January (MMr); other reports of interest included a few birds observed off and on in s. Warren 9-24 January (DR); and 21 w. of Bemheim Forest, Bullitt, 22 February (BP, MGu).

Canada Goose - numbers were certainly below average this winter, peak counts including 6150 at Sauerheber 20 December (MMr); 1300 at Griffin Park 28 December (DR); and a paltry 8000 at Ballard in late December (CW).

Wood Duck - there was an above-average number of birds reported through the winter season, perhaps part of a trend caused by recent milder than normal winters; 1-14 were reported on eight CBCs.

Blue-winged Teal - quite unusual was a female that apparently wintered in s. Warren that was observed at McElroy 19/28 December and 28 January (DR); another rare winter record was provided by a pair at Long Point 18 December (MGr, JWi). Earliest spring arrival reports were for a pair at Long Point (MT) and 2 near Petersburg, Boone (LM), both 21 February; and 2 at Blood River 22 February (HC).

American Wigeon - peak count was for 100+ at Sauerheber 14 December (DR).

Northern Pintail - generally unimpressive peak counts included 18 at Walton's Pond 7 December (DR); a flock of 30 over Gibraltar 2 January (BP, AC); and 300 in the lower Hickman bottoms 23 February (ME et al.).

Green-winged Teal - good numbers remained through the season with peak counts of 50+ at Sauerheber 14 December (BP, SR); and 500 in the lower Hickman bottoms 23 February (ME et al.).

Canvasback - winter numbers were generally small in most areas as the peak count involved 100+ on Lake Barkley above the dam 10 January (DR, RDv); an apparent late season movement northward included 20 at McElroy 28 January (DR); 20+ at Petros Pond 31 January (DR); and 2 at Fishpond Lake, Letcher, 4 February (JCl), which were relatively unusual for se. Kentucky.

Redhead - a few birds were present following late December's cold weather (4-
12 birds on three CBCs); however, by mid-January, birds were probably moving back northward, accounting for the season's peak counts including 20 at Petros Pond 15 January (DR, JR, CH) and 30 January (BP, BY); 17 on the Ohio River at Covington, Kenton, 26 January (FR); 75 at McElroy and 6 at Petros Pond 28 January (DR); 109 at Waitsboro 13 February (RDn); and 112 at Cooley's Pond 25 February (RDn).

Greater Scaup - peak counts included 50+ on Ky Lake 8 December (DR) and 100+ on Lake Barkley, Lyon, 10 January (DR); other reports of interest included 9 in each of two mixed-species flocks of scaup on Ohio River at Louisville 19 December (BP); 5 at Ballard 21 December (BP, SR); and 4 at Thurston's Pond, Wayne, 22 January (RDn).

Lesser Scaup - as usual, peak counts came from the LBL area and included 5000+ on Lake Barkley, Lyon, and 2000+ on Ky Lake both 10 January (DR, RDv).

Black Scoter - only report was for a female/imm. on the Ohio River at Louisville 19 December (BP et al.).

Surf Scoter - only reports were for an ad. male at Waitsboro 12 December (RDn); and a female/imm. on the Ohio River at Louisville 5 February (MS, BY).

Long-tailed Duck - only report was for an ad. male on Lake Barkley above the dam, 6 January (DR).

Common Goldeneye - relatively unimpressive peak counts included 300+ on Ky Lake 8 December (DR); and 200+ on Lake Barkley, Lyon, and 400+ on Ky Lake, both 10 January (DR).

Common Merganser - a few were present following the mid-December cold snap, including 7 at Barren 31 December (DR, SS); 7 at Doe Valley Lake, Meade, 31 December (RDv, MW); a female at Long Run Park, Jefferson, 18 January (BW); a pair at Homestead 17-27 January (BP et al); and a female at the Reformatory Lake, Oldham, 3 February (BW).

Red-breasted Merganser - relatively unusual for mid-winter was a flock of 90 on Lake Barkley, Lyon, 10 January (DR, RDv); otherwise only a few scattered individuals were observed during mid-winter.

Ruddy Duck - peak counts included 175 on Lake Barkley, Lyon, 10 January (DR, RDv) and 300 on Lake Barkley above the dam 15 February (DR).

Pacific Loon - the only report was for a juv. on Lake Barkley at Denumbers Bay, Lyon, 18 December (*BL). KBRC review required.

Common Loon - a total of 43 on the LBL CBC 18 December (CM et al.) represented mostly lingering individuals; evidence of overwintering was limited to a few singles on the larger reservoirs in January and early February.

Horned Grebe - peak counts included 125+ on Ky Lake/Lake Barkley 8 December (DR); 51 on Lake Cumberland, Wayne, 28 December (RDn); and 125 on Lake Barkley, Lyon, and 200+ on Ky Lake, both 10 January (DR); the last two records represent impressive mid-winter totals.

American White Pelican - lingering birds were represented by 150 at Kuttawa 8 December (DR) and 35+ on Lake Barkley, Lyon, 18 December (MB) while 125 on Ky Lake, Calloway, 1 January (HC) may have been overwintering. By mid-February, numbers increased with 120 on Lake Barkley from Boyd's Landing to Kuttawa, Lyon, 15 February (DR); 292 at Blood River 22 February (HC); and ca. 50 over the lower Hickman bottoms 23 February (ME et al.).

Great Blue Heron - locally nesting birds were present at several traditional colony sites by mid-February.

Black-crowned Night-Heron - a few birds lingered into winter with 9 on the Louisville CBC 19 December (J&PB, BBC) and 1 on the Lexington CBC 14 December (fide BM); at least 2 adults wintered at St. Matthews, Jefferson (BW).

Northern Harrier - peak count was for ca. 20 at Peabody, Ohio, including 14 at a likely roost 9 January (BP, MS).
Red-tailed Hawk – all reports of western forms are included: ad. B. j. krideri in Muhlen berg 2 December (DR); ad. light morph B. j. harlani continuing in s. Warren through the period; (DR); ad. dark morph B. j. harlani along Pleasant Hill Rd., Trigg, 25 December (BL, PL); ad. light morph B. j. calurus and juv. dark intermediate morph B. j. calurus, both in Logan 29 December (DR); ad. intermediate morph B. j. calurus at McElroy 1 January (vt.DR, CH); ad. intermediate morph B. j. calurus at Gibraltar 2 January (BP, AC); ad. dark or intermediate morph B. j. calurus near Monkey’s Eyebrow, Ballard, 7 January (SR); ad. dark or intermediate morph in e. Muhlenberg 17 January (BP, AC); and ad. dark morph B. j. harlani with partially banded tail near Monkey’s Eyebrow, Ballard, 18/23 January/24 February (ph.SR).

Rough-legged Hawk – not numerous at Peabody this winter; peak counts included 4 each at Ken Hopewell/Homestead 19 January (DR) and 12 February (J&PB et al.).

Golden Eagle – single birds were at Bernheim Forest 2 December (BP) and 28 December (BP, MMn); a juv. was observed in LBL, Lyon, 18 December (BL); and a sub-adult was observed near Swiftontown, Wayne, 27 December (SS) for a first county record.

Merlin – there were three reports: 1 at Long Point 18 December (KL, NM et al.); 1 over n. Warren 24 December (GRo); and 1 near St. Matthews, Jefferson, in mid-January (BW).

Peregrine Falcon – only reports were for 1 in downtown Louisville in mid-December (AM); 1 at Barkley Dam 10 January (DR, RDv); 1 near Kingston, Madison, 3 February (EO); and 1 at Murray 25 February (HC).

Virginia Rail – 3 different birds (2 at Gibraltar and 1 at Sinclair) answered tapes on the Paradise CBC 2 January (BP, AC, RDn, HC).

Sandhill Crane – a moderate series of s. flights continued through December, with a few small flocks noted into early January; as has typically been the case, mid-January flocks were moving both s. and n. with a pronounced n. flight occurring by mid-February. Peak counts for the season included several hundred over Woodford (ME), hundreds over Paris, Bourbon (MH), and up to 2000 over Elizabethtown, Hardin, (JN), all 14 December; ca. 100 over Shelbyville, Shelby, 15 December (HB); 1200 over Woodburn, Warren, 28 January (DR); and 250 resting w. of Chaney Lake 30 January (BP, BY). A few w. of the normal migratory corridor included 9 near Dawson Springs, Hopkins, 13 December (ER) and a small flock in s. Christian 13 February (SR); birds along the e. side of the corridor included three flocks of ca. 40 each over Berea, Madison, 15 December (PH). A flock apparently wintered again near Guthrie, Todd (fide DM).

Least Sandpiper – lingering birds were represented by 50 in w. Fulton 4 December (HC, ME); birds were found on 4 CBCs including 3 w. of Davistown, w. Garrard, 18 December (ph. G&NE); 2 near Prospect, Jefferson, 19 December (JK et al.); 1 at Ballard 21 December (HC, RDn, RDv); and 7 at Blood River 1 January (HC); later in the season, the only report involved 4 at Jonathan Creek 5 February (ME).

Dunlin – 2 lingerers remained in w. Fulton 4 December (HC, ME).

Wilson’s Snipe – peak count was for 100 in w. Fulton 4 December (HC, ME).

American Woodcock – there were a few reports during the season, all being included: 1 at Paintsville Lake WMA, Johnson, 12 December (SF); 3 at Sinclair 2 January (RDn); by mid-February, numbers had returned to local breeding sites including 1 at Ragland, McCracken, 10 February (SR); 1 near Rock Bridge, DBNF, Wolfe, 19 February (FR); 10 on the reclaimed surface mines near Ame, Pulaski, 22 February (RDn et al.); and 12 in the Bear Creek area of Big South Fork National River and Recreation Area, McCreary, 25 February (SS).
Laughing Gull – likely continuing from late fall was a second-year bird at Ky Dam 15 December (HC, MR) and 10 January (DR, RDv, HC).

Bonaparte’s Gull – peak counts included 500+ at Barren 8 December (DR); 1801 on the LBL CBC 18 December (CM et al.); 826 on the Calloway CBC 1 January (HC, et al.); and 3500-4000 at Kuttawa 15 February (DR).

Ring-billed Gull – peak counts included 4600 at the Barren roost 31 December (DR, SS); 300 at McElroy 2 January (DR); and 1000+ at Barren 21 January (DR); a notable influx arrived with the cold front of 19 December (BP, DR).

Thayer’s Gull – all reports are included: 1-2 ads. at Barkley Dam 8 December – 15 February (DR, HC et al.); a first-winter bird at Barkley Dam 14 December (HC, MR); an ad. and a first-winter bird at Ky Dam 18 December (MB et al.); and a first-winter bird below Barkley Dam 26 January (BL).

Herring Gull – interesting counts included 26+ in a significant movement of gulls along the Ohio River at Louisville 19 December (BP) and 9 first-winter birds at Barren 31 December (DR, SS).

Lesser Black-backed Gull – all reports are included: ad. below Ky Dam 18 December (MB); ad. at Barkley Dam 6 January (DR); ad. at Ky Dam 10 January (DR, RDv); ad. above Ky Dam 15 January (BY); first-winter bird at Ky Dam 26 January (BL, SR) and 15 February (DR); and a first-winter bird just e. of Long Point 21 February (ph.MT) providing a first county record.

Great Black-backed Gull – a first-winter bird was present at Ky Dam 6-10 January (ph.DR, HC). KBRC review required.

Forster’s Tern – as usual, a few birds lingered through winter at Jonathan Creek with no less than 25 there 5 December (HC); 7 there 18 December (HC, ME); 1 there 5 February (ME) and 3 there 18 February (ME); the species appeared at Blood River 8 February (HC) with 6 there 22 February (HC).

Eurasian Collared-Dove – the only new location reported for the season was Science Hill, Pulaski, where 5 were observed 17 January (RDn).

Common Ground-Dove, Jessamine
1 March 2005
Mark Monroe

Common Ground-Dove – a bird was present off and on in a yard n.e. of Union Mills, Jessamine, from late December through the period (EB, GB, ph.MMn). KBRC review required.

Barn Owl – singles were reported on the Louisville (DP) and Calloway (HC) CBCs; also reported was 1 along Pleasant Hill Rd., Trigg, 6 February (BL, PL).

Short-eared Owl – the species was not numerous this winter, all reports being included: 1 on the Shelbyville CBC 26 December (HB et al.); 1 near Flaherty, Meade, 31 December (DP, RC, BP); 3 at Ken Hopewell (RDv, MW) and 1 at Sinclair (RDn), both 2 January; 2 at Ken Hopewell 9 January (BP, MS); 1 near Kingston, Madison, 16 January (GRi) and 3 February (EO); and 4 at Ken Hopewell 12 February (J&PB et al.).

Rufous Hummingbird – 4 Selasphorus hummingbirds were confirmed to be Rufous as follows: a first-year male at Shaker Mill was seen through 2 December (ph.DR, *RS); an ad. female banded at Lexington 11 December (CS) was seen through 17 December (ph.LR); an ad. female banded at Cynthiana, Harrison, 11 December (CS) was seen through 31 January (R&JH; ph.BP); and an ad. male banded at Louisville 11 December (CS) was seen through 15 February (I&DW; ph.JE).
Selasphorus hummingbird — 2 additional hummers (probable adult females) were not definitively identified and must be left as Rufous/Allen's types: 1 at Bowling Green last seen 23 December (JF; ph.JE) and 1 at Kuttawa, Lyon, also last seen 23 December (ph.P& RK).

Red-headed Woodpecker — the species was scarce this winter, with only 33 individuals reported on 12 CBCs including only 1 on the Ballard CBC where hundreds are sometimes present.

Eastern Phoebe — a relatively impressive early winter showing included 1-10 birds on 17 CBCs.

Loggerhead Shrike — a few birds were reported during the season including singles at feeding stations at Shaker Mill (JR, DR); in Anderson (SL); and in n. Jessamine (JWe).

Blue-headed Vireo — an unlucky bird struck a window and died at Richmond, Madison, 6 December (CO).

Horned Lark — peak counts occurred in late December and January, following the coldest weather of the season, and included 400 at Surrey Hills Farm 26 December (BP); 250+ near Petersburg, Boone, 26 December (KCa, JCa); 1455 on the Olmstead, Logan, CBC 29 December (MB et al.); and 300+ at and near Woodburn, Warren, 3 January (DR).

Purple Martin — earliest report was for se. Monroe 24 February (JT fide TC).

Tree Swallow — quite early was a bird below Ky Dam 15 February (DR).

Red-breasted Nuthatch — 1-9 on 15 CBCs represented a moderate presence during the season.

House Wren — there were two reports: 1 near Burnside, Pulaski, 1 January (SS) and 1 at Mt. Zion, Pulaski, 19 February (RDN).

Ruby-crowned Kinglet — a total of 17 on the Ballard CBC was relatively impressive (BP et al.).

Gray Catbird — 1 was reported on the Richmond, Madison, CBC 18 December (KT).

American Pipit — the species was fairly well represented on the CBCs with 1-72 individuals reported on 8 counts. Peak count for the season was 140 at McElroy 16 December (DR).

Cedar Waxwing — the species was well below average on CBCs with only 1-38 individuals reported on 9 counts.

Pine Warbler — there were only a few winter reports including 1 in s. Jefferson in mid-December (BP); 1 at a feeding station in Webster, 25 December (SA); 2 at Barren River Lake St. Pk., Barren, 31 December (DR, SS); 2 in Calloway 1 January (HC); 1 at Lake Cumberland St. Pk., Russell, 17 January (CN, GHo); and 1 at Murray 26 January (ME).

Palm Warbler — only a few were reported on CBCs, including 3 at Lexington 14 December; also reported later in the season were singles at Griffin Park 24/25 January (DR) and McElroy 30 January (BP, BY); 2 at Cooley's Pond 28 December (RDN); and 1 on Frazier Rd., Wayne, 8 February (RDn).

Common Yellowthroat — quite unusual was a female adjacent to Ballard 21 December (*BP).

Spotted Towhee — presumably the male that was found in w. McCracken last winter was present at the same location 21 December (*BP, SR), but there were no subsequent reports.
Savannah Sparrow – an interesting report involved at least 32 individuals eating cracked corn along the edge of a small weed patch on Surrey Hills Farm 27 December (BP).

Chipping Sparrow – again this winter, increasing numbers of wintering birds were reported; 1-40 were reported on 15 CBCs including 40 below Dewey Dam, Floyd, 27 December (TP et al.); birds were confirmed overwintering at Shaker Mill – up to 21 birds 23 December (DR); and at Surrey Hills Farm – at least 40 birds 27 December (BP); also reported were 2 at Barren, 20 December and 1 there 21 January (DR); 2-4 on Pleasant Hill Rd., Trigg, during most of the winter (BL, PL); 1 at Lake Cumberland at Mystic View, Wayne, 8 February (RDn); and a few in sw. Jefferson 20 February (EH, BBC).

Amer. Tree Sparrow – peak count involved ca. 50 at Surrey Hills Farm 23 December (BP).

Lapland Longspur – there were reports from several areas as follows: ca. 25 along the Ohio River at Louisville (BP) and at least 1 in ne. Jefferson (MMn), both 19 December; at least 2 near Petersburg, Boone, 26 December (KCa, JCa); 3 near Dot, Logan, 26 December (FL); at least 17 in s. Logan 29 December (MB, DR); up to 10+ at Surrey Hills Farm during the last week of December (BP); 5 in w. Calloway 28 December (ME); flocks in s. Warren throughout the season (DR) with a peak count of 100-125+ at McElroy 30 January (BP, BY); at least 5 near Oscar, Ballard, 7 January (SR); at least 50 near Open Pond, Fulton, 15 January (BY); and 11 in s. Ohio 12 February (DR).

Snow Bunting – the late-December cold spell brought a few birds into the n.-cen. part of the state with 1 at Surrey Hills Farm 23/26 December (BP) and 9 near Petersburg, Boone, 26 December (KCa, JCa).

Rose-breasted Grosbeak – a male lingered at a yard near Cox’s Creek, Nelson, to 1 December (ph.GHa).

Indigo Bunting – quite tardy in departing was a bird near Lake No. 9, Fulton, 4 December (HC, ME).

Eastern Meadowlark – likely indicative of the commencement of the species’ spring migratory period was a bird in suburban Frankfort 16 February (BP).

Western Meadowlark – 7 were reported in the lower Hickman bottoms 6 February (JWi); also, 1 was present at Walton’s Pond 14 February (ph.DR).

Rusty Blackbird – 1 to 100 were reported on eight CBCs; peak counts included 100 on the Upton, Hart, CBC 18 December (J&PB et al.); 80 at McElroy 28 January (DR); and 200 at Chaney Lake 30 January (BP, BY).

Brewer’s Blackbird – the only reports involved 4 near Open Pond, Fulton, 4 December (HC, ME) and 40 along Smokey Road, Ballard, 21 December (SR, BP).
Bullock's Oriole - a male that will represent a first state record was first noted at a feeding station outside of Lawrenceburg, Anderson, in early January and was seen by many in February (ph.ABR et al.); it subsequently lingered through the end of February. KBRC review required.

Pine Siskin - small numbers lingered throughout the season; 2-6 were reported on only four CBCs; peak count was up to 40+ at Panorama Shores, Calloway, during early to mid-January (KCo).

Purple Finch - small numbers lingered at many areas through the season; 1 to 16 were reported on 19 CBCs; peak counts included ca. 25 near Fisherville, Jefferson, in mid- to late February (EH, JH).

20 at a feeding station in s. Ohio 19 January (DR); and 15 at LBL, Lyon, 30 January (BL).

Uncorroborated report: A Common Redpoll was reported via Cornell's Project Feederwatch from Louisville, Jefferson, 8 January (fide DB); unfortunately, solicited details from the observer were never received and the validity of this report is unclear.

Erratum: Conley Bottom, Lake Cumberland is located in Wayne, not Pulaski, as was incorrectly reported for the Greater White-fronted Goose in the Fall 2004 season report (KW 81:4, 2005).

Observers: Steve Anderson (SA); David Ayer (DA); Jane & Pat Bell (J&PB); Mark Bennett (MB); Earl Boggs (EB); Gary Boggs (GB); David Bonter (DB); Horace Brown (HB); Joe Caminiti (JCa); Kathy Caminiti (KCa); Terry Campbell (TC); Bill & Margaret Case (B&MC); Richard Cassell (RC); Hap Chambers (HC); Wayne Clements (WC); Jeff Climie (JCI); Katharine Cohen (KCo); Amy Covert (AC); Granville Cox (GC); Roseanna Denton (RDn); Robert Dever (RDV); Melissa Easley (ME); Ginny & Neil Eklund (G&NE); Jackie Elmore (JE); Troy Evans (TE); Jackie Featon (JF); Scott Freidhof (SF); Bill Fuller (BF); Paul Hager (PH); Gail Hart (GHa); Mark Greene (MGGr); Mark Gumbert (MGu); Rex & Jan Hiday (R&JH); Martina Hines (MH); Gay Hodges (GHo); Carter Hooks (CH); Eddie Huber (EH); Jennifer Huber (JH); Paula & Randall Kepner (P&RK); John Krull (JK); Susan Lambert (SL); Ken Leggett (KL); Bill Lisowsky (BL); Paula Lisowsky (FL); Frank Lyne (FL); Amy Marr (AM); Scott Marsh (SM); Lee McNeely (LM); Mark Monroe (MMn); Nancy Moore (NM); Bob Morris (BM); Mike Morton (MMr); Daniel Moss (DM); Carl Mowery (CM); Connie Needley (CN); Joan Noel (JN); Erin O'Brien (EO); Chelsey Olson (CO); Brainard Palmer-Ball, Jr. (BP); Don Parker (DP); Ed Ray (ER); Scott Record (SR); Frank Remfrow (FR); Mike Resch (MR); Annette & Bobby Riddle (A&BR); Gary Ritchison (GRi); Gerald Robe (GRo) David Roemer (DR); Joan Roemer (JR); Leisa Royse (LR); Robert Sargent (RS); Chris Sloan (CS); Stephen Stedman (SS); Matt Stickel (MS); Kayde Thompson (KT); Mike Todd (MT); Joys Trouser (JT); Shawchyi Vorisek (SV); Mary Walter (MW); Dick & Irene Ward (D&IW); Jill Weast (JW); Charlie Wilkins (CW); Jeff Wilson (JW); Barbara Woerner (BW); Ben Yandell (BY); Beckham Bird Club (BBC); Ky. Ornithological Society (KOS).

The Kentucky Ornithological Society Spring 2005 Meeting

April 29-May 1, 2005
Shepherdsville, Kentucky

The spring 2005 meeting of the Kentucky Ornithological Society was held April 29 to May 1, 2005, at the Best Western Hotel in Shepherdsville, Kentucky. The Beckham Bird Club hosted the meeting.

The meeting featured a 3:00 p.m. "early bird" field trip to Bernheim Forest led by Celia Lawrence.
The Friday evening program was held at nearby Davidson Memorial United Methodist Church in Shepherdsville. President Hap Chambers called the meeting to order at 7:25 p.m. (EDT) with several opening announcements and introductions. There were several first-time attendees at the meeting.

Hap introduced Wayne Davis, who was offering free Carolina Wren bird boxes to the attendees. These boxes are more open than bluebird boxes and are preferred by Carolina Wrens over traditional nest boxes. They can be placed almost anywhere.

Next, Hap introduced Dona Coates to the attendees, and announced a Beckham Bird Club (BBC) field trip to Mexico planned for February 2006. Interested parties were encouraged to contact Dona for details.

KOS Vice-President Mark Bennett took the floor next and thanked the BBC and Dona Coates for hosting the meeting, providing refreshments and organizing the field trips, including a special Saturday afternoon field trip for attendees not involved with the KOS Board meeting.

The first speaker of the evening was Pam Polston, a graduate student from Eastern Kentucky University (EKU), who gave a presentation based on her research on the nesting behavior and reproductive success of Chimney Swifts, the only swift that breeds in the eastern United States. Ms. Polston stated that Chimney Swifts are common and widespread, but their population has statistically declined by 1-6% in the U.S. and Canada. She explained that this decrease is probably a result of loss of nesting habitat, since most new houses are now constructed with capped chimneys. She mentioned an organization called the Driftwood Wildlife Association (www.concentric.net/~dwa/index.html), which has recently begun developing artificial chimneys for Chimney Swifts to use for nesting sites.

The evening’s next speaker was Darren Proppe, another EKU graduate student, whose presentation Possible Functions of the “Simple” and “Complex” songs of Grasshopper Sparrows summarized his research. Mr. Proppe explained that Grasshopper Sparrows have two distinct types of songs: a simple (grasshopper-like) song and a more complex, musical song. His research, which was conducted at the Bluegrass Army Depot near Richmond, suggests that the simple song is also used to attract females and establish and maintain territory, whereas the complex song, which is used in response to predators, is used as a warning after pairing and during nesting when the female is most vulnerable.

The third speaker of the evening was Matt Beckett, another EKU graduate student, whose presentation was entitled Singing Behavior of Male Indigo Buntings. Mr. Beckett explained that only male Indigo Buntings sing, and that each male has a repertoire of only one song. This song is learned from neighboring males on the breeding ground during the bird’s second year, rather than from the bird’s father. Males living in close proximity (in “song neighborhoods”) may have similar songs, but each individual male has its own unique song. An individual bird may vary the number and order of phrases in his song throughout the year, but the individual phrases are not altered after they are learned. Mr. Beckett’s research was conducted at the Central Kentucky Wildlife Management Area.

Next, KOS Vice President Mark Bennett thanked the speakers and gave a short presentation on the results of an educational program at Heritage Elementary School in Shelbyville, Kentucky, which was funded by the Anne L. Stamm Avian Education Fund. The funding was used to purchase field guides, several sets of binoculars, owl pellet dissection kits and supplies for building and maintaining several bird feeding stations. Jamie Smith, the teacher who requested funding for the project, sent the PowerPoint presentation to KOS to show the results of the project, and to thank KOS for their support.

Mark introduced Phyllis Niemi, who challenged the attendees with a bird trivia contest. The contest ended in a tie between Lee McNeely and Ben Yandell.

The meeting concluded at 9:44 p.m. after Dona Coates described the field trips scheduled for Saturday morning. A social, with refreshments provided by the Beckham Bird Club, was held after the conclusion of the meeting.
The morning field trips included a trip to the Falls of the Ohio and the Louisville Nature Center led by Robert Dever, a trip to Tioga Falls in Bullitt County led by Celia Lawrence, and a tour of the Boston Wetlands in Bullitt County led by Brainard Palmer-Ball. An afternoon field trip to Bernheim Forest, led by Eddie and Jennifer Huber left from the Best Western Hotel at 2:00 p.m.

The KOS Board meeting was held at 2:30 p.m. at the Best Western Hotel. The board meeting was followed by a meeting of the Kentucky Bird Records Committee.

The Saturday evening program was held at the Davidson Memorial United Methodist Church, and was called to order at 7:33 p.m. by KOS President Hap Chambers. Opening statements included an announcement that copies of the booklet Watchable Wildlife & Birding Trails Across Western/Eastern Kentucky, published by the West Kentucky Corporation (www.10000trails.com/wildlife), were available for free after the meeting.

Evelyn Morgan of the Kentucky Department of Forestry made a request for KOS volunteers to set up information booths at a workshop to be conducted June 19-20 by the Kentucky Association of Environmental Education.

Next, the prize for Friday night’s bird trivia contest was presented to Lee McNeely and Ben Yandell. Since Ben was not present at the Saturday night meeting, the prize was awarded to Lee. Hap thanked Dona Coates and the Beckham Bird Club again for hosting the meeting, and turned the floor over to Dona. Dona introduced the evening’s first speaker, Brian Patteson.

Brian Patteson has organized and led pelagic birding trips off Cape Hatteras since 1995 for Seabirding Pelagic Trips (www.seabirding.com). These trips explore the warm Gulf Stream waters around the continental shelf and the Outer Banks of North Carolina. Because the continental shelf is so close to land off Cape Hatteras, these trips allow for shorter travel times and longer times spent birding versus other locations. Mr. Patteson showed slides featuring photographs of some of the seabirds and other creatures observed on his trips. The birds featured in his slides from the summer months included shearwaters, petrels, storm-petrels, Red-billed and White-tailed Tropicbirds, jaegers, South Polar Skua, terns, Masked Booby and Sabine’s Gull. Birds observed during the winter included: Razorbills, Gannets, Dovekies, Atlantic Puffins, Thick-billed Murres, phalaropes, Manx Shearwaters, Kittiwakes, Fulmars, Yellow-nosed and Black-browed Albatross, Great Skuas and Sooty Shearwaters. Other creatures featured in Mr. Patteson’s slides included: leatherback sea turtles; ocean sunfish; pufferfish; dolphin (mahi-mahi); marlin; bottle-nosed, Atlantic spotted, Riso’s, rough-toothed and common dolphins; and Pilot, Couvier’s beaked, and sperm whales.

Following Mr. Patteson’s presentation, Shawchyi Vorisek of the Kentucky Department of Fish and Wildlife Resources spoke concerning a new Cerulean Warbler Atlas Project study of private lands. She asked for volunteers to help with the study, especially property owners owning more than 500 acres and private companies who would be willing to participate. Volunteers would help by driving down roads in the study areas, playing tapes of Cerulean Warbler songs, and listening for responses from the birds.

Next, Elizabeth Ciuzio, also of the Kentucky Department of Fish and Wildlife Resources, gave an update on shorebird surveys in Kentucky and asked for volunteers for the project, especially those capable of aging shorebirds.

Blaine Ferrell then took the floor to tally the list of birds observed during the meeting. A total of 108 species was observed up to the time of the Saturday night meeting. Dr. Ferrell also encouraged the attendees to submit articles for The Kentucky Warbler. The species total for the entire weekend was 115 species.

The meeting concluded with remarks from Hap Chambers and Dona Coates. Hap announced that Lake Cumberland State Resort Park would be the location for the 2005 KOS fall meeting on September 25-25, and announced that a silent auction for birding-related materials would be featured during that meeting.
Dona announced the field trip agenda for Sunday morning, including: Bernheim Forest, led by Lee McNeely; the Riverwalk at Shawnee Park, led by Jane and Pat Bell, and Cave Hill Cemetery in Louisville, led by Bob Johnson.

The meeting concluded at 8:52 p.m., and was followed by a reception including refreshments provided by the Beckham Bird Club.

- Submitted by Gerald Robe, Recording Secretary

**Attendance at the KOS Spring Meeting**

Berea: Gene Stinchcomb
Bowling Green: Blaine Ferrell, David Roemer, and Joan Roemer
Burlington: Lee McNeely
Carlisle, IN: Virginia Kingsolver and Wendell Kingsolver
Corydon, IN: Mary Walter
Cox's Creek: Dona Coates and Roger Coates
Danville: Ginny Eklund, Neil Eklund, and Michael Hamm
Dearborn, MI: Darrin O'Brien
Dyersburg, TN: Betty Leggett and Ken Leggett
Eddyville: John Niemi and Phyllis Niemi
Elizabethtown: Janet Gebler
Floyds Knobs, IN: Colleen Becker and Tom Becker
Frankfort: Elizabeth Ciuzio, Jim Durell, and Shawchyi Vorisek
Greenville, IN: Bill Fender and Jane Fender
Indianapolis, IN: Larry Peavler
Lexington: Shirley Davis, Wayne Davis, Bobbi Shain, Lou Shain, Jim Williams, and Jackie Van Willigen
Louisville: Mary Bill Bauer, Pat Bell, Jane Bell, Anne Caudill, Bonnie Dever, Robert Dever, Katharine Fulkerson, Missy Hubbard, Eddie Huber, Jennifer Huber, Celia Lawrence, Pat Myers, Brainard Palmer-Ball, Jr., Pam Polston, and Ben Yandell
Morehead: Fred Busroe, Joanna Busroe, and Katie Busroe
Morgantown: Carroll Tichenor and Doris Tichenor
Mt. Sterling: Gerald Robe
Murray: Hap Chambers
Olive Hill: Evelyn Morgan
Prospect: Win Ahrens
Richmond: Matt Beckett, Darren Proppe, and Pete Thompson
Russellville: Mark Bennett
Science Hill: Roseanna Denton
Somerset: Gay Hodges and Connie Neeley
Taylor Mill: Gary O'Hair

**Bird Species Observed at the KOS Spring Meeting**

Shepherdsville, Kentucky, and Vicinity

The following bird species were observed during the weekend of April 29 – May 1: Canada Goose, Wood Duck, Mallard, Ring-necked Duck, Greater Scaup, Lesser Scaup, Surf Scoter, Red-breasted Merganser, Wild Turkey, Common Loon, Pied-billed Grebe, Double-crested Cormorant, Great Blue Heron, Green Heron, Black-crowned Night-Heron, Black Vulture, Turkey Vulture, Cooper's Hawk, Red-shouldered Hawk, Broad-winged Hawk, Red-tailed Hawk, American Kestrel, Killdeer, Solitary Sandpiper, Spotted Sandpiper, Ring-billed Gull, Herring Gull, Caspian Tern, Common Tern, Rock Pigeon, Mourning Dove, Yellow-billed Cuckoo, Chimney Swift, Ruby-throated Hummingbird, Belted Kingfisher, Red-bellied

FIELD NOTES

Common Ground-Dove in Fulton County

On 23 November 2002 we were birding Lake #9 in Fulton County, KY when a Common Ground-Dove (Columbina passerina) landed in a willow tree 10 feet from where we stood. It flew down to the mudflat among some American Pipits (Anthus rubescenes) where it was flushed by a Northern Harrier (Circus cyaneus). It then flew low over the trees toward the west.

We were trying to relocate the dove when Nancy Moore arrived and joined us in the search. The property owner stopped and told us he had been seeing a small dove in the dirt road that led down to the lake. We began focusing our search on the road. The dove was located feeding along the road using nearby bushes for cover. It fed on seed in the dirt road along the edge of the pigweed.

It was approximately the same length as the pipits; but it appeared bulkier. Overall, it was a grayish brown color and was a small, rather square tailed dove. It had a dark tail with white outer tips. The bill was small with a deep pink base and a darkish gray tip. The eyes were a dark reddish color. The breast had a scaled effect and to a lesser extent, so did the head and sides of the neck. The primaries were rufous, as were the underwings. The wing coverts had rust to wine-colored markings on them, which could look purplish under some lighting conditions. The legs were short and the body was very close to the ground. The legs and feet were pink.

We took photographs and called other birders. Ben Yandell happened to be in the area and came to see it that afternoon. We saw it again the following day along with several others, and additional photographs were taken by David Roemer (see p. 68) and Jeff Wilson. The dove was last reported on 30 November 2002.

Common Ground-Dove is a permanent resident in most areas, but in parts of the southwest it is much more common in summer, suggesting a regular migration to the south (Lives of North American Birds, Kenn Kaufman 1996).

There is a previous report of this species on 25 July 1999 on the Westvaco WMA, Carlisle County (J. Quinn notes; Annotated Checklist of the Birds of Kentucky, Brainard Palmer-Ball, Jr. 2003).

— Happy Chambers, 33 Wildwood Drive, Murray, KY; and Roseanna Denton, P.O. Box 222, 968 Hwy 1676, Science Hill, KY
Northern Shrike in Muhlenberg County

While birding the Sinclair Unit of the Peabody WMA in Muhlenberg County on 13 November 2004, we spotted a Northern Shrike (*Lanius excubitor*) along the S5 road. As we were driving back out from the S5 marsh, a bird flew along the side of the vehicle going the opposite direction from us. It perched in the top of a small tree just long enough for us to determine that it was a shrike before it flew across the road and over the hill out of sight. The narrow dark mark behind the eye made us realize we should try to relocate it to determine which shrike we had seen. We walked up the hill in the direction the bird flew and located it near a pond moving around in some small locust trees. It was hunting, and we watched as it flew down and came back up with a grasshopper a number of times. It stuck the grasshoppers on thorns and appeared to leave some of them; others it picked apart and ate as we watched.

The bill was a dark gray with a pale base. The head and back were brownish gray. The bill looked smaller than we expected for a Northern Shrike; the hook was longer than in Loggerhead Shrike (*Lanius ludovicianus*). There was a whitish border between the brownish gray forehead and the bill. The black mask extended below and behind the eye and flared out at the back. It was narrower than a Loggerhead Shrike's mask. The area below the dark mask was washed in brown. This area should be white in a Loggerhead Shrike. There was a thin whitish area around the eye. The lores were mostly pale, but there was a thin dark mark from the upper mandible that joined the mask below the eye. The throat was whitish with a thin dark mark down it. The upper tail coverts were whitish (they should be gray on most Loggerheads), and the underparts were whitish with brownish barring. The wings were mostly black with a white patch at the base of the primaries. The tertials were tipped with white. The long tail was blackish with white on the ends of the outer tail feathers. From the center of the tail outward the amount of white increased. The brownish color and the barring on the underparts with no barring on the upper parts eliminated Loggerhead Shrike.

After we had studied the bird and taken photographs, we made some calls to alert others. The bird was subsequently seen by a number of birders. It proved to be a challenge to locate, as it apparently occupied a large territory on the Sinclair Unit. David Roemer was able to obtain some additional photographs 28 November 2004 (see p. 68), the last day it was observed. Photographs taken, along with written descriptions, make this the first fully documented record of Northern Shrike for Kentucky.

-Happy Chambers, 33 Wildwood Drive, Murray, KY; Roseanna Denton, P.O. Box 222, Science Hill, KY; and Melissa Easley, 1610 Loch Lomond Dr., Murray, Ky.

NEWS AND VIEWS

Visit the K.O.S. Website

To learn about the Kentucky Ornithological Society and interesting happenings, visit the K.O.S. website at www.biology.eku.edu/kos.htm, maintained by Dr. Gary Ritchison.

K.O.S. Burt L. Monroe, Jr. Avian Research Grant Fund

The K.O.S. Burt L. Monroe, Jr. Research Grant Fund supports research on birds in Kentucky up to $500. For guidelines on how to apply, please contact Dr. Blaine Ferrell, Ogden College of Science and Engineering Deans Office, Western Kentucky University, Bowling Green, Kentucky, 42101 (blaine.Ferrell@eku.edu).
Above: Common Ground-Dove, Fulton County, KY; 24 November 2002
Below: Northern Shrike, Muhlenberg County, KY; 28 November 2004
Photographs by David L. Roemer