during invasion years. Given that Illinois lies at the periphery of this species' wintering range, especially central Illinois, territories are probably even larger in the state. This may also be partially due to habitat fragmentation and degradation. In addition, the density of the wintering western subspecies seems to be higher than the density of eastern subspecies (Cade 1967). Given these data, I felt it prudent to eliminate some multiple bird sightings in DuPage County and Clinton Lake.

A number of the birds observed during the 1999/2000 invasion appeared to set up fairly discrete territories. Although it is impossible to tell if any of these birds were actually the same individuals noted on subsequent visits, it is likely many were. In several cases, some of the birds could even have been birds seen in previous winters at those locations (see Rimmer and Darmstadt 1996). However, some of the shrikes birders thought were the same individual could have been other birds. For example, Atkinson (1993) noted that after one of his study birds died, another appeared in the same territory within a week. And this phenomenon occurred in a region where densities of wintering birds are lower than in the East.

Fourteen locations, involving seven counties, reported Northern Shrikes for a period of two months or longer (including eight with stays of over three months). All but one of these (Sangamon Co.) involved northern Illinois areas, especially Cook, Lake, and DuPage Counties. An additional seven locations reported birds for over a month. Most other sightings were of only one or a few days, especially those that were reported from CBCs. Of those identified to age, all but two were adults. The average length of stay for the 14 longest overwintering areas was about 98 days, or well over three months. The four areas where shrikes were noted the longest were from Cook and Lake Counties, with sightings from Crabtree Nature Center (142 days) 24 Oct. - 13 Mar., Paul Douglas Forest Preserve (138 days) 30 Oct. – 15 Mar., Lake Villa (120 days)



Adult Northern Shrike. Lake Villa, Illinois. Lake County. The bird stayed a remarkable 120 days. It was first seen on 25 October 1999 and last seen 21 February 2000. Photo by Richard Biss.

25 Oct. – 21 Feb., and Ron Beese Park (117 days) 19 Nov. – 14 Mar. All of these were adults and represent exceptional attempts by the two birders involved (Carolyn Fields and Richard Biss) to find and report their sightings. The longest downstate area reporting a shrike was Dave Bohlen's immature bird at Lake Springfield (113 days) from 8 Dec. - 29 Mar. Northern Shrikes were also reported from Fermi-Lab from 28 Oct. - 9 Mar., but due to lack of information it was not possible to determine how many individuals may have been involved at any one location.

Linear habitats also appear to be important for wintering Northern Shrikes. Territories of three birds near Frondenberg, Germany, were found to be approximately 100 to 150 acres, with each being a long strip along the banks of the Ruhr River (Mester 1965). At the Idaho study site, each of the 12 territories contained two or three types of linear habitats, which included country roads (with utility lines for perches) and riparian stretches (Atkinson 1993). I have observed similar linear habitats in central Illinois birds, including roadsides where favored habitat (thorny scrub and wet meadow) was combined with convenient perches (utility lines and scattered, medium-sized trees). At least three other sites in central Illinois during the 1999/2000 season included linear sites, all along Interstate right-of-ways. These sites could be some of the only substantial wintering habitat available in the corn and soybean desert of central Illinois (R. Chapel, pers. comm., pers. obs.). Unfortunately, these kinds of territories have also been shown to create a high source of mortality for shrikes (Lefranc 1997).

## Site fidelity

Studies as well as numerous anecdotal accounts strongly suggest the Northern Shrike is site faithful to winter territories, and possibly even migration stop-over sites. Site fidelity may be an important strategy in this species' life cycle for surviving the non-breeding season, since winter mortality has been suggested as the consequence of an inability to maintain home ranges (Rimmer & Darmstodt 1996). In fact, Cade & Swem (1995) postulate the survival of these shrikes during the winter season is never high enough to allow nesting populations to reach their potential carrying capacity in the breeding ranges. (See also Cadman 1985 and Brooks 1988.) That theory may be the reason large areas that seem suitable for breeding and wintering grounds for Northern Shrikes are not utilized, and it also may be the reason why territories in Illinois during the winter, are so large.

Many Illinois observers mentioned to me that areas where they saw Northern Shrikes in the 1999/2000 season were the exact areas where they saw shrikes in past winters (D. Johnson, J. Milosevich, D. Wenny, B. Glass, M.J. Easterday, D. Williams, G. Wagner pers. comm.). Illinois' birding listserve, IBET (Illinois Birders Exchanging Thoughts) also had posts with the same comments. Regions where the phenomenon seemed to be the most pro-