shows how important the habitat is."

Areas like Kennekuk County Park were intensively surveyed because local birders already knew of the rich diversity of bird life there. Some blocks where volunteers were not as easily found were surveyed more cursorily, according to Kleen. Many of those blocks were surveyed during blockbusting weekends, when several birders, sometimes students or professional ornithologists, traveled to an area and birded intensively for a day or weekend.

Initial plans called for all data-gathering to be completed within five years. But Kleen added the 1991 season because so many blocks hadn't yet been surveyed.

The number of species observed and confirmed within counties varied widely. That stems, of course, from differences in range, habitat diversity, and degree of development. But those areas most intensely covered, obviously, produced the greatest number of confirmed species. The three counties in which over 100 species were confirmed through 1990 - Vermilion, Will, and Winnebago - were all surveyed for well over 1,000 hours.

Still Kleen said, "We weren't able to get as thorough a study throughout the state as we would have liked. But we couldn't go on forever."

It's likely that inconspicuous species like Henslow's Sparrows or Least Bitterns were missed more often than, say, Red-tailed Hawks, added Kleen. He sees it; however, as an invitation to future researchers. "The atlas is designed to be updated any time," he said.



A sighting of Eastern Kingbird and nestlings confirms the species. (Glen Jahnke photo)

"Someone could decide that we missed a lot of the good stuff, and if you go back now and survey another block of the five of every six, you'll get complementary information."

The atlas data will help in measuring long-term trends. The study invites comparisons in 10, 20, 50, or 100 years. "The atlas will be a snapshot of distribution and relative abundance of breeding birds of the state - information that will help the department of conservation make decisions on managing avian resources," said Kleen.

"We hope it will have a lot of use beyond the birding community," he added. Planners, for example, could use the book to learn that the site of a proposed development is rich in bird life. "They'll ask, 'How can we develop it with minimal impact on the bird population?'" Data about threatened, endangered, or other scarce species may become particularly important in making management or development decisions, said Kleen.

Meanwhile, volunteers are not ready to hang up their binoculars in the summer even though the project is over. Mechtenberg said the atlas has enabled her "to intimately get to know" one area that she would not have not otherwise visited. Mechtenberg plans to visit those sites again this summer. Maybe this will be the year that she finds that Warbling Vireo's nest.