

from raising livestock) within and outside the barn. Flies are particularly numerous and provide an important energy source for young Barn Swallows when they are being reared during the summer. Fourth, the barn provides shelter for nests, young, and adults from inclement weather (high winds, rain, temperature extremes) during the spring and summer. Fifth, the barn provides refuge from numerous species of native predators (n=29). These selective advantages (except perhaps for No. 3) may also often apply to Barn Swallows' use of other types of human-made structures.

Speich, Jones, and Benedict (1986) reported use of natural nesting sites by Barn Swallows during early colonial settlement of North America. However, a shift soon occurred to human-made structures and now few nests occur at natural sites. However, as late as 1889, Ridgway (1889) reported in *The Ornithology of Illinois* that Barn Swallows nested in caves and on cliffs in regions that were uninhabited by humans and where buildings were lacking. Speich et al. (1986) and Brown and Brown (1999) indicated that proliferation of human-made structures has increased the range and abundance of Barn Swallows. Since the species is widely distributed in the New and Old World (C. Brown and M. Brown, 1999), there is no danger of extinction.

In the poisonous corn desert of central Illinois, many, if not most of the old dairy barns have deteriorated and been destroyed in the last 50 years (which is also true for many other older outbuildings). After the destruction of many early farmsteads, the smaller, older farms were consolidated into the much larger present-day farms. The old barns have been replaced by fewer numbers of large, metal machine sheds, which often lack eaves, and are often closed and locked to prevent burglary and protect equipment from the weather. Thus, Barn Swallows have fewer places to nest. This situation is exacerbated by lack of trees and little topographic relief reducing the availability of natural nesting sites. The potential reduction of insect prey (due to biocide use), may also foster local decreases in abundance of Barn Swallows in some flat land agricultural areas of central Illinois.

CONCLUSIONS

The predominant use of human-made structures (e.g., barns) for nesting by Barn Swallows over the last two centuries has resulted in humans having a substantial effect on the lives of Barn Swallows. A number of selective advantages gained by nesting in barns, the great adaptability of the species, and adequate fecundity has insured their survival in North America. In the long-term, the old barns belong to the Barn Swallows and other animals. We humans are merely stewards of the animals and their barns.

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