*Statistical analyses*. We used on-line worksheets provided by McDonald (2009) to perform various statistical tests with a probability of type I error <0.05 considered significant. Data within a site were not analyzed to determine variation among years but were pooled across years to increase sample sizes.

*Rarefaction*

We used rarefaction to compare species richness among sites. Rarefaction produces idealized species-accumulation curves that allow direct comparison of results among groups that differ in patterns of abundance or are sampled using different techniques (Gotelli and Colwell 2001). Rarefaction calculates the expected species richness of the different groups for a constant sampling effort, but does not provide an estimate of asymptotic richness. Rather, for each accumulation curve we calculated a Chao 1 non-parametric estimator of richness with its variance and 95% confidence interval (Chao 1984).

*Shannon Diversity, Dominance, Evenness,*

We compared species diversity with Shannon Diversity Index, and converted diversity to the “effective number of species” (Jost 2006) to represent true diversity with mathematical properties allowing comparison among groups. We calculated numerical dominance of species captured within each site, and an evenness index (Magurran 1988) of the distribution of individuals among taxa (absolute evenness = 1.0).

*Jaccard’s Index, Sorenson’s*

We used Jaccard’s index to compare the similarity of communities based on presence/absence of species, and Sorenson’s measure to compare the similarity of sites based on the proportional abundance of species recorded, and the proportional abundance of birds in each diet category.

*Capture rates*

We used a chi-square test of independence to examine captures among sites for all species with >30 mist net captures. Comparisons were based on actual numbers (not rates) of captures, with expected values based on net hours (Blake and Rougès 1997). Because of the large number of planned comparisons, we used the Dunn-Šidák method to decrease the level of α and reduce the probability of committing a Type I error.

*Site persistence*

We used a chi-square test to examine differences in site persistence among sites for species with sufficiently large sample sizes, or a Fisher’s exact test of independence when expected numbers were small.

*Age ratio, sex ratio, migratory status, diet, habitat*

We used these tests to examine differences in the proportion of adults and the proportion of males among sites, and to test for significant heterogeneity in the proportion of species and individuals among sites grouped by migratory status, diet category, and preferred habitat.

*Insect abundance*

All insect abundance data were analyzed with G-tests of Independence.