Mangrove bird communities in north Australia comprise relatively few passerine species compared with other arboreal habitats in the region. Mangroves are dominated by a few tree species and there are potentially few resource axes available for partitioning by terrestrial birds. Competition for limited resources is predicted to cause strong niche differentiation and a highly structured, but low diversity, bird assemblage. Using multivariate and bipartite network analyses based on 1771 foraging observations (33% of 5320 behavioral observations), we examined resource partitioning by 20 terrestrial bird species in mangroves of north Australia. The mangrove bird community largely comprised generalist insectivores that partitioned insects by size with moderate-to-high interspecific overlap in diet. Gleaning for insects was the most common foraging mode. Few species specialized on nectar. Flowers of one or more mangrove species were available in every month of the year and insect abundance was correlated with flowering peaks. Niche differentiation by birds was determined by food type and foraging mode more than by broad spatial (mangrove zones) or temporal (seasonal) segregation of the use of resources. There was little evidence of bird species saturation or species sorting, suggesting loose species packing and a lesser role than expected for species interactions and interference competition in structuring the bird assemblage in mangroves.

Key words: avifauna; bipartite network analysis; community ecology; niche segregation; plant–animal interactions.