

ABSTRACT

AVIAN DISTRIBUTION IN THE COCKPIT COUNTRY, A LIMESTONE KARST REGION OF JAMAICA, WITH SPECIAL EMPHASIS ON THE DISTRIBUTION AND POPULATION SIZE OF *AMAZONA* PARROTS IN THIS REGION

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The Yellow-billed Parrot (*Amazona collaria*) and Black-billed Parrot (*Amazona agilis*) are near-threatened and restricted to mesic to wet limestone forests, which cover less than 10% of the island. Previous authors estimated the global population of Yellow-billed Parrots as approximately 10,000 and the Black-billed Parrot 5,000. Before Hurricane Gilbert (1988), Black-billed Parrots were reported as abundant as Yellow-billed Parrots within the Black-billed Parrot's stronghold of Cockpit Country. Post-hurricane assessments revealed an apparent decline in Black-billed Parrot population in this area.

A survey of 140 points using a modified point count method during 1998 and 1999 resulted in a population estimate of $11,476 \pm 1148$ territorial Black-billed and $8,608 \pm 1722$ Yellow-billed territorial parrot pairs for the Cockpit Country. Black-billed Parrot densities were greater than Yellow-billed Parrot

densities in disturbed edge habitat, however, there were considerable variation in the abundance ratio between the two species across the Cockpit Country.

Though the effect of the environmental variables were not exactly clear, disturbance significantly influenced the distribution patterns of birds in the Cockpit Country, with many of the endemic birds showing strong dependence on natural forest. Yellow billed Parrots were more sensitive than Black-billed Parrots to forest degradation. The observed patterns of bird distribution suggest several endemic and resident birds to be good indications of habitat quality in the Cockpit Country. The results have implications for the conservation of the Cockpit Country, the last remaining parrot stronghold on the island.