

FEATURE ARTICLES

TEMPORAL AND SPATIAL PATTERNS OF MACAW ABUNDANCE IN THE
ECUADORIAN AMAZON

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Abstract. Although macaws are arguably the most widely recognized species of bird from Neotropical rainforests, little is known of their basic biology or demography in the wild. In Ecuador, as in other Neotropical countries, it is suspected that several species of macaw are declining in response to human activity and habitat alteration but there is little hard data supporting this supposition. In this paper, we present one full year of data on macaw populations from a relatively pristine site in the Ecuadorian Amazon, and compare this site to two other sites with intermediate and relatively high levels of human activity. At Tiputini Biodiversity Station, a pristine terra-firme forest, macaws were more common in the dry season than in the wet season. This pattern is the opposite of that recently reported for seasonally inundated forests in Peru, suggesting that macaws may make large-scale, seasonal movements across habitat types. We employed the same sampling methodology for shorter periods of time at Sacha Lodge, characterized by intermediate levels of human activity, and at Jatun Sacha Biological Station, characterized by relatively high levels of human activity and habitat degradation. We recorded an intermediate number of macaws at Sacha Lodge, and the lowest densities at Jatun Sacha. Three groups of indicator taxa sampled at all three sites showed a similar pattern. These data provide a baseline for future demographic studies of macaws in the Ecuadorian Amazon and lend tentative support to the idea that macaw population declines may be linked to human activity and habitat alteration.

Key words: Amazon, Ara, conservation, Ecuador, macaw, Orthopsittaca, Parrot.