

Patuxent Wildlife Research Center Habitat Protection for Wintering Neotropical Migrants

Accelerating loss of rain forest in the tropics poses a major threat to the survival of Neotropical migrant songbirds. In 1960, 77% of the original forest remained in Guatemala, but it was predicted that only 2% would still exist in the year 2005.

To gain protection for strategic rainforest sites on the Atlantic slope of Guatemala and to encourage adjacent land owners to manage their lands to benefit wildlife, a Guatemalan non-government organization called FUNDAECO (Foundation for Ecodevelopment and Conservation) was established in 1990. Patuxent scientists are providing technical expertise to FUNDAECO staff and to Guatemalan university students.

FUNDAECO activities

- Environmental education
- Agroforestry extension programs
- Biological research and monitoring
- Health and welfare of local communities
- Land purchase
- National legislation
- Collaboration with other organizations



Patuxent contribution

- Training in bird identification
- Training in banding and point counts
- Establishing bird monitoring programs
- Training in data analysis, GPS and GIS
- Providing computer and other equipment
- Advanced training for college students
- Audiovisual programs for Guatemalan TV



Current research results that justify the need to protect habitat in Cerro San Gil

- Remnant populations of rare species on the mountain top.
- Presence of other species that are rare in Guatemala.
- Unusually large species pool: 350 bird species recorded.
- Low elevations have the most bird species and are most threatened.
- Mid and high elevations have distinctive species that need protection.
- Neotropical migrants tend to use habitats not fully occupied by residents.
- Mountaintops are preferentially used by U.S. migrants enroute to S. America.
- Forest fragmentation is more detrimental to tropical residents than to migrants.
- Our research indicates small songbirds survive to age 8 or more years.
- Cerro San Gil is on a major pathway for migrating kites and hawks.
- Cerro San Gil is especially critical for nesting of rare hawks and owls.
- Populations of most bird species are stable from year to year.
- Nearly half the species were rare, found at less than 1% of sampling points.



Using research results, the Guatemalan Congress in 1996 passed legislation that gave federal protection to 47,600 hectares at Cerro San Gil, making it the largest protected area in Guatemala. And in 1999 they protected 44,000 hectares of rain forest at adjacent Punta Manabique, for a total of 91,600 hectares (nearly a quarter of a million acres) of prime habitat for wintering Neotropical migrants.