

**A brief report of Belize duck surveys for 2004-2005 field season**  
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Wetland surveys were conducted in Belize, Central America, during the time period of September 2004 to May 2005. This brief report highlights the main wetlands explored and surveyed for anatids. The survey was conducted by a group of volunteers and was financed by Ducks Unlimited through the efforts of Montserrat Carbonell.

During this field season three main wetlands were surveyed throughout Belize namely Shipstern lagoon in the north, Crooked Tree lagoon in central Belize, and Aguacaliente lagoon in the south. However, due to the proximity of adjacent wetlands on these three target wetlands an exploratory phase was conducted. A total of two wetlands were surveyed for the first time out of a total of 12 wetlands areas reported by Dora Weyer.

**Wetland description**

**Shipstern Private Preserve:**

Shipstern Private Reserve is located in Northern Corozal District and encompasses an area of 18,841 acres. The entire wetland ranges in altitude from 0 to 4 meters above sea level. The entire lagoon system is large but shallow complex up to five meters in depth. The lagoon system borders with the Caribbean Sea on the eastern edge and is therefore brackish near the coastal end but almost completely fresh towards the inland boundaries. The vegetation is dominated by extensive areas of grassy marshes and mangroves.

### **Crooked tree Wildlife Sanctuary**

The Crooked tree Wildlife sanctuary is located in Orange Walk and Belize district and encompasses an area of approximately 41,297 acres. On average, the system is at 12 to 16 meters above sea level. The entire lagoon complex is comprised of mostly seasonal and a few permanent shallow fresh water lakes and marshes. Numerous creeks and tributaries drain into the sanctuary, the principal being Black Creek. Water levels fluctuate as much as three to six meters from dry to rainy season. The entire complex includes Revenge lagoon, Crooked Tree Lagoon, Calabash pond, Western Lagoon, Poorhaul Creek, Mexico Lagoon, Jones Lagoon, Spanish Creek and Southern Lagoon. Submergent aquatic vegetation predominates throughout the entire complex with an extensive and dense shrubby vegetation border on all lagoon systems. Extensive stands of pine savannas with seasonal patches of small ponds become increasingly important after all rains have subsided. This is Belize's only RAMSAR designated wetland.

### **Aguacaliente Wildlife Sanctuary**

The Aguacaliente Wildlife Sanctuary is located in Toledo District and surrounded by the villages of Laguna, Mafredi, Blue Creek and Jordan. The entire wetland complex encompasses an area of approximately 6,400 acres and is basically comprised of seasonal and permanent freshwater ponds and swamp forest. (Figueroa et al 2003)

## Surveys

The surveys commenced on September 2004 and ended on May 2005. A total of 15 participants took part but only five were consistent and interested namely Boris Arevalo, Isaias Pol, Norman Martinez, Omar Figueroa and Wilber Martinez. Most of the surveys were aerial due to the inaccessibility of the wetlands. The aerial surveys were conducted with a Cessna 172 single-engine high-wing airplane piloted by Frank Plett and David Dueck.

During this year Belize did not experienced any major Tropical storm but had a prolonged dry season since 2003. Consequently, two of our target wetlands were almost completely dried with the exception of a few ponds and streams of water (Fig 1.)

A total of five species were recorded in the Crooked tree lagoon with *Dendrocygna autumnalis* with highest estimate in the month of April. *Anas discors* was recorded from November to May with a peak on January. The Highest number of *Anas discors* was slightly over 2,000, which is unusual for Crooked tree lagoon in comparison to the previous years where the estimates reached over 20,000 individuals. Aguacaliente showed the lowest estimates of *Anas discors* with 210 individuals. (Fig. 2&3).

The exploratory phase of this seasons identified three potential wetlands for futures surveys; these are Booth's River wetland in the Rio Bravo Conservation Management Area, Blue creek rice field in northwestern Orange Walk district and Sarstoon Temash wetlands in Toledo district. These wetlands have ideal foraging habits for anatids and are in the vicinity of the three major wetlands.

The challenges of this year's survey were mainly recruiting consistent volunteers. It would be beneficial to conduct a workshop with all the interested bird watchers of the country to encourage, educate and establish good working relation.

The recommendation for future surveys is to continue the surveys on the three major wetlands so that inference could be drawn with greater confidence. It is also important to conduct the surveys with a systematic methodology with transect lines in all the major wetlands. This would minimize the duplication of counts and enable a good data analysis.



Fig 1. An aerial picture of Crooked Tree Lagoon at the peak of the dry season 2005.

Fig 2. Shows the date, number of individuals and duck species at Crooked Tree Lagoon site

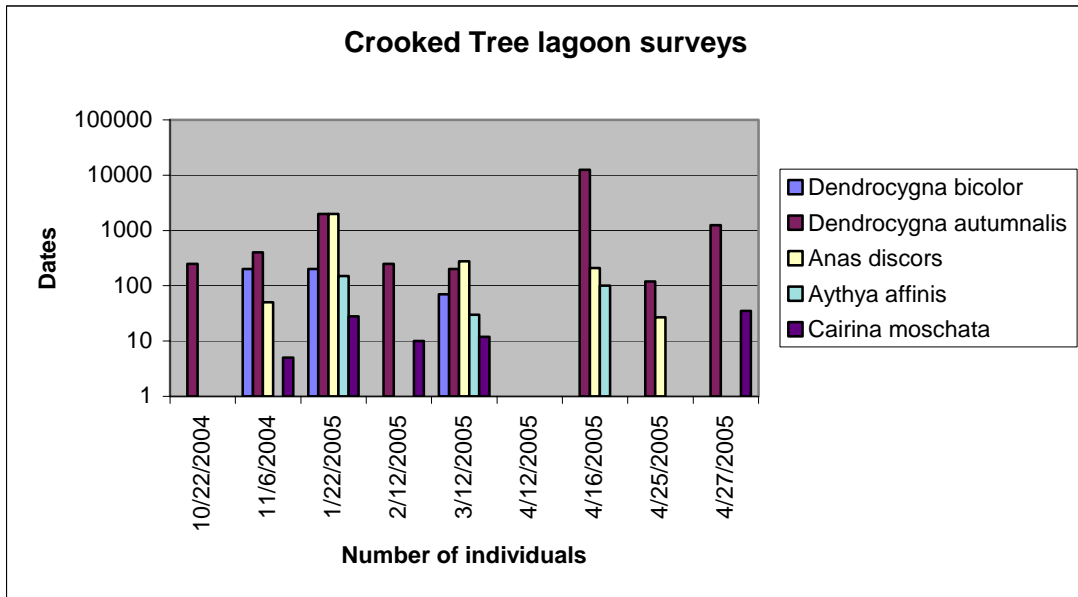


Fig 3. Shows the date, number individuals and duck species at Aguacaliente lagoon site

