"A SURVEY OF THE SMALL SCALE TROPICAL FRESHWATER FISHERY AT CROCKED TREE (NORTHERN) LAGOON"

BY THOMAS K. NEKIN

NOVEMBER 1985
composition of the net and personal-use harvest and to obtain samples for length and weight measurements and scale samples for age analysis. The fish were measured for total length on a centimeter scale and weighed on a gram scale.

Surface water temperatures were taken with a hand-held thermometer.

RESULTS

Species Identification

The following species of fish have been identified as being present in the Crooked Tree Lagoon area. The scientific name is followed by the common name in parenthesis, if it is known. This is not considered to be an all-inclusive list.

FAMILY CICHLIDAE
- *Petenia splendida* (bay snook)
- *Cichlisoma uropthalmus* (chrona)
- *Cichlisoma friedrichstahi* (tuba)
- *Cichlisoma salvini*

FAMILY Ictaluridae
- *Ictalurus furcatus* (blue catfish, baca)

FAMILY PIKELODIDAE
- *Rhamdia motaguensis* (catfish)

FAMILY CHARACIDAE
- *Astyanax fasciatus* (billum)
- *Hyphessobrycon compressus* (billum)

FAMILY CYPRINODONTIDAE
- *Rivulus marmoratus*

FAMILY PROCOILIDAE
- *Belonesox belizanus* (alligator fish)
- *Gambusia sexradiata* (mosquito fish)
- *Gambusia yucatana* (mosquito fish)

FAMILY CLupeidae
- *Opisthonema oglinum* (Atlantic thread herring)

FAMILY ELOPIDAE
- *Megalops atlantica* (tarpon)
FAMILY CARANGIDAE
Caranx hippos (crevalle jack)

FAMILY CENTROPOMIDAE
Centropomus undecimalis (snook)

STOCK ASSESSMENT

Net Harvest

The net fishery commenced in mid-February and terminated in late June. There was a total of nine vendors periodically buying fish at Crooked Tree Lagoon during the 1985 season. Most of the vendors had specific fishermen fishing for them and met them at pre-arranged times and locations on the lagoon to purchase their fish.

The majority of the net fishing occurred at the southern end of the lagoon in the vicinity of Spanish Creek. Some personal-use fishermen who occasionally sold their fish to vendors fished in other areas, including north of the causeway where the water level did not recede as rapidly because of the impervious dike. All fishing was done from dories (dugout canoes). It took approximately four (4) to six (6) hours and 20 net hauls for two (2) fishermen to capture about 300 pounds of fish. The nets varied in length from 50 to 100 feet with a stretch mesh size of three (3) inches. The nets were used as seines and many fish of all sizes escaped from the nets during the seining process either by passing through the mesh or jumping over the cork lines.

The vendors had ice-boxes in their vehicles with capacities ranging from 250 to 300 pounds except for one vendor who had two ice-boxes and a capacity of 550 pounds. The vendors usually arrived at the appointed landing site on the lagoon between 11 am and 1 pm and the fishermen usually landed during the same period. The fish were rapidly washed, loaded into the ice-box and iced to prevent spoilage. The fishermen received 60 cents per pound, in the round, from the vendors for their catch. By 3 pm the vendors had usually departed from the lagoon to sell their fish at the major markets of Belize City, Belmopan, Orange Walk, Corozal and the surrounding villages. However, most of the fish were sold in the Orange Walk District. A maximum of three (3) trips could usually be made to the lagoon by