

Notes prepared by Virginia Burns Perez, Adaptive Management Program Director, TASA

1. **Fisheries Catch Data Collection** is fundamental to the management of a fishery. Consistent data collection can determine: catch composition, catch-per-unit-effort (CPUE), and trends over years that will inform management strategies and policies.

TASA currently pilots a Fisheries Catch Data Program at TAMR, which started in August 2021. This program addresses the lack of important fisheries data needed to effectively manage the fisheries at TAMR. This data will determine catch-per-unit-effort (CPUE) and trends for important commercial species and may contribute to the development of sustainable levels of catch for future implementation.

TASA's trained Conservation Officers currently collect catch data weekly from any of the approximate 250 customary fishers (700 licensed fishers total), by encountering them at sea and documenting species, size and mass, maturity, gear type, effort, vessel type and spatial information. Data is currently collected using paper and pen, however, TASA is in the process of integrating technology into our Fisheries Catch Data Program. All data will be collected using rugged tablets and entered into a customized Vericatch application, a fisheries catch application reporting software that meets the challenges of at-sea data collection and fisheries management.

Despite a slow start to the program, to date our team has collected approximately 700 samples of lobster, 200 samples of finfish and 500 samples of conch. We expect this program to improve monthly.

During the data collection at sea, TASA also uses the opportunity for important Education & Outreach. Information from fishers on their experience at sea is documented, and TASA reminds fishers of current rules and regulations at TAMR. TASA will share data results with the fishers in the near future.

Below are photos of classroom and field training of the TASA Conservation Officers:



## 2) Lobster Camp Fishery Inventory

In March 2021, TASA commenced the third iteration of Lobster Camp Fishery Inventory to update number of fishing camps, fishing grounds, lobster traps and lobster shades currently out at TAMR. Lobster traps were also tagged with either a cable tie with serial number or an aluminum tag also with a serial number.

Two virtual training sessions were held in March and April to review datasheets and data collection methodology with TASA's Conservation Officers. TASA's current enforcement jurisdiction used at TAMR was used to divide data collection across the three TASA bases: Maugre Caye, Calabash Caye and Caye Bokel. Data was collected on number of active fishing camps; number of fishing grounds where lobster traps and/or shades are deployed; quantity and characteristics of lobster traps and shades used.

1. **Fishing Camps**: To date approximately 31 active fishing camps have been documented, similar to what was reported in the 2020 inventory report. Although one of the traditional fishers passed away this past year, the camp is being used by another fisher.
2. **Fishing Grounds**: There are 46 fishing grounds at TAMR, to date 43 of those have been mapped covering an area of 225 sq. km of the lagoon floor. The other 3 fishing grounds are being used by 3 fishers that have been very difficult to encounter. The team continues to work on getting these 3 fishing grounds mapped in time for the final technical report in February 2022.
3. **Lobster Traps**: Through our surveys so far, we have documented approximately 8199 lobster traps owned by 15 fishers who use TAMR and 7399 of these traps are currently deployed on the lagoon floor. This is a 13% increase in lobster traps owned and a 7.5% increase in lobster traps deployed in a year. The lobster traps documented thus far are made of Santa Maria hardwood frames and saltwater palmetto strips.
4. **Lobster Shades**: 6065 lobster shades, owned by 22 fishers, have been documented thus far and 6045 of these are currently deployed. These numbers represent a 10% and 15% increase in owned and deployed shades, respectively. Shades are mostly made from saltwater palmetto frames and zinc covers, old car parts and old appliance parts.

50% (4117) of lobster traps have been tagged so far. Lobster shades were not tagged due to the fact that lobster shades once deployed are never removed from the seafloor. Tagging shades would require SCUBA diving, and with limited bottom time, is very time consuming to accomplish. Number of lobster shades were documented and characterized.

There were some challenges encountered over the past year which led to a delay in starting the inventory fieldwork. Many fishers were delayed in deploying lobster traps at the start of the lobster season due to lack of finances because of COVID-19 and also scarcity of savannah palmetto. Several fishers reported that there was a shortage in savannah palmetto and that palmetto cutters had to go deeper into the rural areas. Palmetto cutters also had difficulties

obtaining a permit from the Belize Forest Department. Conservation Officers also faced great difficulties encountering fishing camp owners and lobster trap owners, which delayed the tagging process, since TASA had to obtain permission from fishers to tag traps. Many times only a caretaker was at a fishing camp. Despite making phone calls, it was still difficult to reach fishers.

Moving forward we plan to get permission from TAMR fishers through key meetings prior to the lobster season. Also, the recent Fisheries Amendment, Statutory Instrument No. 128 of 2021 now includes a form where fishers will have to declare the number of traps they own.

TASA will continue to follow up with fishers to complete mapping of fishing grounds and also to continue tagging lobster traps.

Photos of inventory work:





