CPUE Estimations of the Campeche Shrimp Fleet (Gulf of Mexico) Using a Generalized Linear Model

In the present work CPUE data of the Campeche shrimp fleet operating in the Gulf of Mexico were analyzed for the year 1997 using a Generalized Linear Model (GLM). Data were extracted from 240 logbooks of 171 shrimp vessels that summarized 33940 records of landing-catch. Additionally data included vessels characteristics (vessel name, overall length, horsepower, age built, gross tonnage, net tonnage, carrying capacity, hull material) landing location (Longitude and latitude), depth, fishing area and catch by specie. This information was integrated in a matrix including CPUE (Kg/effective day of fishing) as the dependent variable. A preliminary multiple regression analysis showed that net tonnage and carrying capacity were significant vessel characteristics. These variables plus landing locations, fishing area and depth were included as ranges codified in the GLM as follow: Shrimp monthly catches, five levels of carrying capacity (5-15 tons, 16-30 tons, 31-40 tons, 41-50 tons, > to 51 tons), three levels of net tonnage (39.5-70 tons, 71-90 tons, 91-110 tons), three levels of depth (< to 20 fathoms, 20-40 fathoms, 40-100 fathoms and 0-100 fathoms) three areas of fishing (1 = Region between Tamaulipas and north of Veracruz, 2 = Campeche Sound y 3 = Contoy zone). The GLM resultant was significant ($p > 0.05$), explaining a 42 % ($R^2 = 0.42$) of the shrimp monthly catches. To carry out the estimations, August catches were used as reference since it was the month with the highest shrimp catch. This model allowed us to estimate the fishing power and fitted CPUE values by month, depth and carrying capacity. We could observe that CPUE changed with respect to spatial strata with the greatest on the regions 1 and 2. These regions are influenced directly by the fishing restricted period. The highest catches were observed after restricted fishing period is opened.

KEY WORDS: CPUE, Gulf of Mexico, shrimp fleet

Pêche sur les Frayères de Mérous en Martinique

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Une enquête a été réalisée en Martinique pour faire suite aux propositions faites lors de la dernière réunion du GCFI sur les pêches sur frayères de mérous. Cette enquête révèle l=existence de ce type de pêche sur une espèce : *Alphester afer* et marginalement sur *Epinephelus fulvus*. Une première description des techniques de pêche et de leur évolution est faite. Une localisation grossière des zones où se pratique cette activité est également présentée.

MOTS CLÉS: Frayères de Mérous, pêche

Groupers Spawning Aggregation Fisheries In Martinique

Following the last GCFI meeting proposition on groupers spawning aggregations fisheries, a survey has been undertaken in Martinique. This survey reveals that fishing occurs on one species *Alphester afer* and marginally on *Epinephelus fulvus*. This poster present a first description of the fishing techniques and their evolution. A rough localisation of this fishing areas is presented.

KEY WORDS: Grouper spawning aggregation, fishery

The Use of Fish Traps in Puerto Rico: Current Practice, Long Term Changes, and Fishers' Perceptions

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Traps are used extensively in the Caribbean region for catching fishes and crustaceans in diverse habitats, and traps may affect the natural dynamics of habitats as well as exploited populations. An interdisciplinary study incorporating fisher knowledge and quantitative field surveys is investigating the habitat effects of traps. Here, we report on trap fishing methods today and fishers' perception of current trends and localized problems in Puerto Rico. Forty-seven trap fishers representing 5 regions (north, south, east, west, and islands) were interviewed on site about gear construction, effort, habitat preferences and fishers' perceptions of the main problems in the fishery and their possible solutions. Materials used in fish traps have been changing, over time; however, the main routine for setting traps remains generally the same with some localized variations. Despite its traditional dominance in local artisanal fisheries, more than half of the interviewed trap fishers have reduced their number of traps; therefore individual effort seems to be declining. Coral reefs were not reported as a preferred fish trap location, but rather areas adjacent to reefs (sand, seagrass, gorgonian, and algal habitats) are targeted. The