

ABSTRACT

This study investigates the reliability of catch per trip as an index of abundance in the Barbados day-boat flyingfish (*Hirundichthys affinis*) fishery by investigating effects of variation in boat, gear, trip and fisherman characteristics, as well as effects of environmental factors, on trip frequency, catch and catch per trip.

Trip frequency was the best predictor of total catch. The number of trips landing at Speightstown was lower for boats with higher catch per trip. This suggests that successful boats either fish more often or land at alternate sites more often. Catch per trip was not correlated with either boat age, boat length or boat horse power; and was not correlated with fishing gear power (effective net area). Moreover, effects of daily variation in the environmental variables measured (rainfall, temperature, cloud cover, wind speed, relative humidity, and luminescence) on trip frequency, total catch and catch per trip were either statistically insignificant or negligible. However, catch per trip was highest for fishermen with the most fishing experience, and was highest for fishermen who returned latest to mooring (longest trip duration). A quantitative socio-economic investigation should now be conducted to determine whether fishermen could increase their total catch, and hence total income, by increasing seasonal trip frequency and daily trip duration.