ANALYSIS OF THE FISHERIES FOR TWO PELAGIC CARANGIDS IN HAWAI'I

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By

Kevin Chi-Ming Weng

Thesis Committee:

John Sibert, Chairperson
Mark Merrifield
Craig Smith
Jeffrey Polovina

ABSTRACT

Fisheries for akule and opelu are important throughout their circumtropical range and are among the most productive nearshore fisheries in Hawai'i. Commercial, community and government interests have raised concerns of overfishing. In this study, a 30-year fisheries database is used for time series and spatial analysis. A model is developed which successfully diagnoses overfishing in an idealized scenario. This model indicates that both akule and opelu are exploited below maximum sustainable yield, and are not threatened by the fisheries. Correlations with environmental time series show that the akule may be influenced by precipitation. Spatial analysis shows that the majority of the catch is taken from a small number of areas that receive the most effort. This analysis also indicates that the akule has sufficient site fidelity to allow localized reduction in *CPUE* due to fishing, while the opelu likely does not.