

Status of bocaccio rockfish stocks in California

Trawl caught-bocaccio rockfish are landed in the general or unspecified rockfish landing category in each of the three California INPFC statistical areas. They typically comprise 50% of the Monterey area trawl catch, but are of lesser importance in the Eureka and Conception areas.

Accurate estimates of general rockfish category species composition have only recently become available for the Eureka and Monterey INPFC areas. Monterey area Bocaccio landings (Figure 1) increased considerably during the period (1977-1983) but remain below the ABC of 4100 mt. There are no ABCs set for the Eureka and Conception areas, nor are landings available for the Conception area.

The increase in Eureka area landings from 1981 to 1983 most likely reflects both increased use of roller-gear by the state's trawl fleet, and a northward shift of bocaccio stocks associated with the 1982-1983 El Niño.

Increasing landings within the Monterey area must also be a reflection of the trawl fleet's adoption of roller-gear. One would suspect that the more efficient gear was enabling the fleet to better utilize the previously established allowable catch. However the age composition of the states trawl caught bocaccio landings between 1978 and 1982 (Figure 2) show a fishery sustained by an exceedingly strong 1977 year class. The overall age composition during this period (Top Figure 2) shows the passage of this year class through the fishery, making it's greatest contribution at age 4. The dependence of the fishery on a single year class between 1979 and 1982, with no indication that a similarly strong year class is being recruited, suggests that recent landings (1983, projected 1984) represents an acceptable yield and that the established ABC is far too high. This is especially true if bocaccio recruitment substantially depends on the size of the spawning stock.

A more detailed analysis of existing and future data will allow us to make a better appraisal of the status of California's bocaccio stock, thereby allowing us to establish a more realistic ABC.

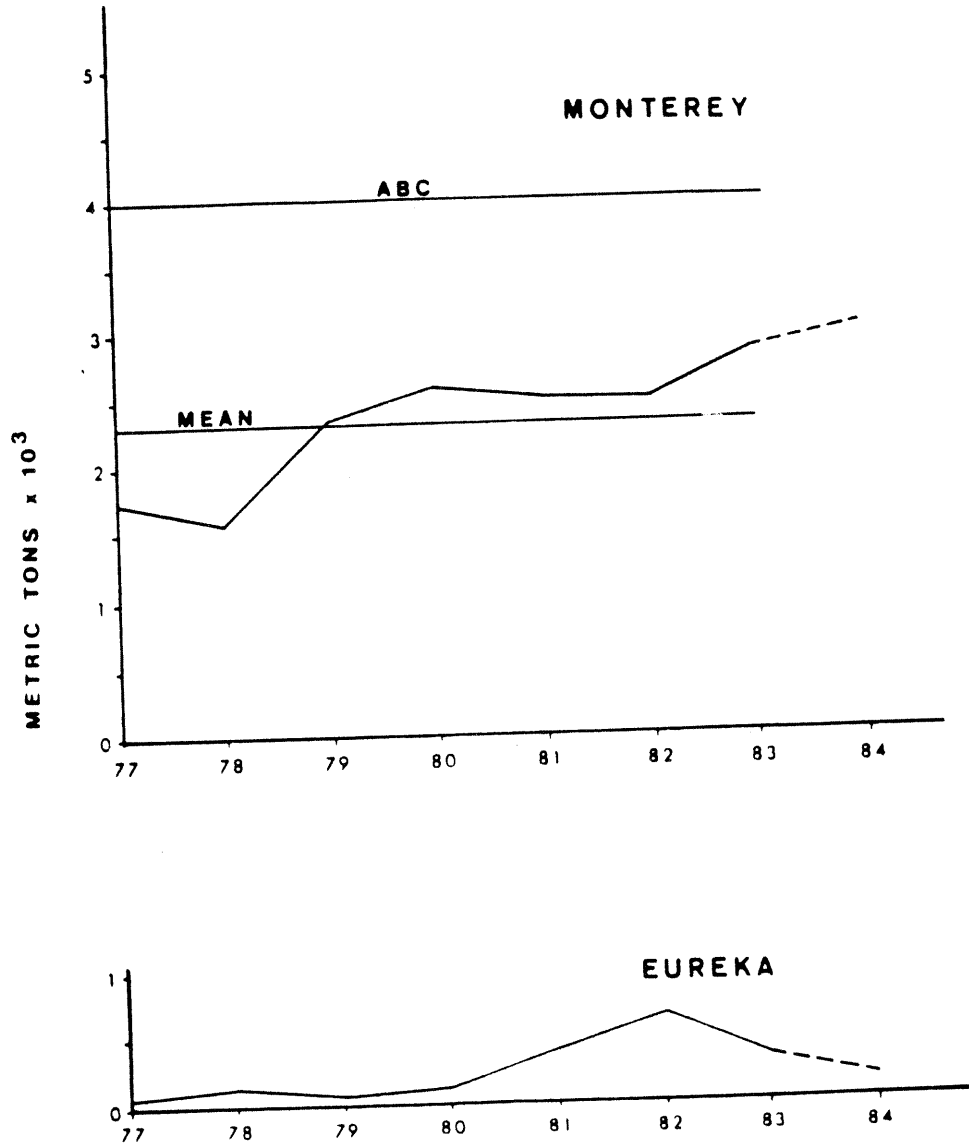


Figure 1. Monterey and Eureka INPFC area bocaccio landings, 1977-1983, projected 1984.

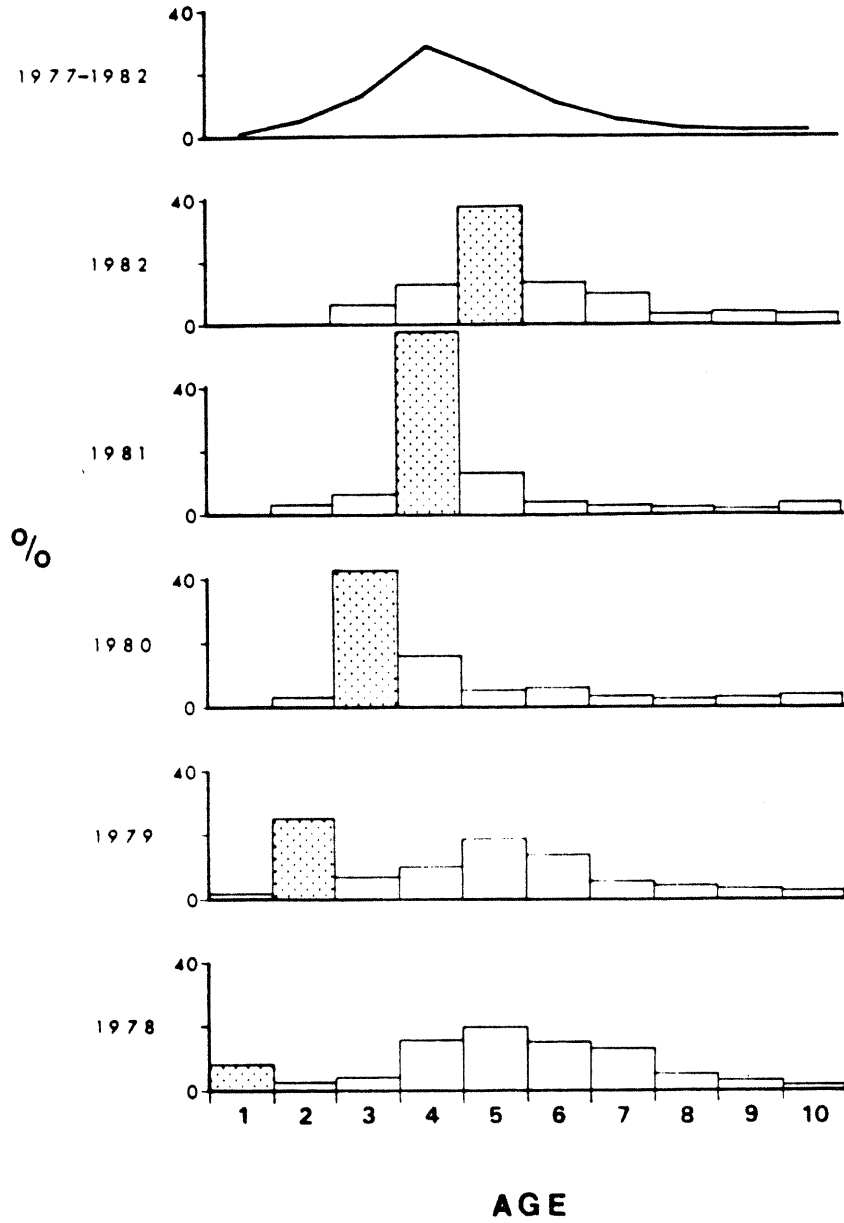


Figure 2. Age composition of trawl caught bocaccio rockfish in California 1977-1982 (Top). Age composition by year 1978-1982 (stippling denotes 1977 year class).

