

ESPINOZA MORRIBERON, DANTE. 2010. Estandarización de la CPUE de la flota industrial de cerco del stock norte-centro de anchoveta peruana (*Engraulis ringens* JENYNS 1842) entre 1996 y 2008.

ABSTRACT

The Peruvian anchovy (*Engraulis ringens*) fishery, considered the biggest monospecific fishery in the world, produces very relevant social and economic benefits for Peru. Therefore, it is especially important to implement an adequate management of this fishery. In that sense, it is very useful to count with biomass indicators that provide an idea of the stock state. The CPUE (catch by unit effort), is considered a biomass relative index in a unit of time since theory assumes that the CPUE and the biomass are directly proportional; however, in the practice, this proportionality is hardly ever accomplished. The reasons that try to explain the no proportionality goes from the influence of the factors related to the fishermen (as the characteristics of the boats). To the influence of the factors related to fish distribution. It is assumed that one way to remove those effects is through the standardization. The methodology to standardize the CPUE used in the present study was based in the theory of the Generalized Linear Models (GLM) with reproduces the observed values in function of a series of explicative variables. For this purpose, the Generalized Linear Models (GLM) was also used to observe the performance of the variables. The measure to standardize was catch per journey length and the explicative variables were year, month, storage capacity, latitude, spatial inertia and distance to coastline. The information source for this process came from a Programme developed by the IMARPE: Programa Bitácora de Pesca (PBP) (Programme of Fishery Logbooks). The obtained model explained the 48.5% of the observed CPUE variability, which is a satisfactory result since it came from fishery data; being the storage capacity the variable which influenced the most (49%) in the model, probably due to the elevated capture capacity of the anchovy fleet and the hyper-aggregation of the pelagic sources which occurs even when they are been highly exploited. Besides, the correlations obtained in the standardized CPUE and the biomass data (0.55) indicate that the GLM is a good method to obtain de CPUE standardized series.