Reproductive Parameters of Coastal Pelagic Fishes

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Reproductive Parameters of Coastal Pelagic Fishes
Parámetros Reproductivos de Peces Pelágicos Costeros
Paramètres de la Reproduction des Poissons Pélagiques Côtières

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ABSTRACT
The ability to manage a fish stock relies on an understanding of life history characteristics and basic biology of the species. Numerous age-growth studies are facilitated by the relative ease of ageing fishes through hard-part analyses. Determining reproductive parameters for fish populations is just as important for stock assessments and management, and histological examination of gonads provides the most accurate determination of fecundity and spawning periods. However, research in this area is limited. Coastal pelagic fishes are often targeted commercially and recreationally due to their easy access by private vessels. The objective of this study is to provide baseline data for two fish species important to Florida fisheries: the coastal pelagic fishes of blackfin tuna Thunnus atlanticus, and little tunny Euthynnus alleteratus. Histological examination of archived gonad samples for these four species from 2010-2014 will provide data on spawning periodicity (single or multiple periods per year) and baseline fecundity of reproductive-age females. To date, 185 samples of blackfin tuna and 191 samples of little tunny have been prepared onto slides and are undergoing microscopic evaluation to determine maturity. The individual fish will be classified as being immature, developing, spawning capable, regressing, or regenerating.

KEYWORDS: blackfin tuna, little tunny, gonadal maturity, histology, recreational fisheries