

REPORT VOL. 34 (4)

THE COMMON SNAKE EEL *OPHICHTHUS REMIGER* OFF LOBOS DE AFUERA ISLANDS, LAMBAYEQUE, DURING 2005

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As part of a monitoring program of the species, the study included some biological-fishery aspects, relative abundance and fishery efforts, related to environmental parameters. The total length (TL) was 22 to 61 cm; mean 36,47 cm; the sex ratio was 1.0 males 1,02 females. The catches were composed by virginal individuals (51%) and initial mature (48%); the mean TL of first sexual maturity was 39 cm for females and 40 cm for males. The stomach content included mainly crustaceans (28%), fishes (26%), cephalopods (3.6%), polychaetans (2.1%). The most important preys were: the red crab *Mursia gaudichaudii* (16.4%), Peruvian anchovy (13.3%), common snake eel (3.6%), red shrimp *Munida* sp. (0.6%), octopus (1.8%) and squid (0.6%). The highest concentrations were found in northwest of the islands, with the best captures at the stratum II (74 to 111 m). The common snake eel in the Lobos de Afuera islands must be considered as a potential and sustainable resource in the Lambayeque litoral, according to the highest mean fishery index of the year, expressed as Kg/hour/trap, obtained on sandy bottoms, with water temperature between 14-16°C and dissolved oxygen concentrations of 0.5 a 1.0 mL/L.

BIOECOLOGY OF THE CATFISH *GALEICHTHYS PERUVIANUS* IN PERUVIAN SEA. PERIOD 1998 - 2004.

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The spatial temporal distribution, abundance, feeding and reproduction of this fish species was studied during a six years period, 1998-2004, along Peruvian sea, particularly off Lambayeque, in northern of Perú. This catfish inhabits Cold Coastal Waters (CCW) and soft bottoms along the Peruvian sea, particularly inside the 50 nautical miles off shore. The main areas of distribution were acoustically detected from Punta La Negra (6°S) and Chimbote (9°S), zone where the continental shelf has its maximum longitudinal width. Depending of the depth of the oxycline this fish reaches until 140 m depth. Acoustic assessment performed between 1998 and 2004 showed a maximum biomass of 2.133.357 tons during winter 1998, at the end of El Niño 1997-98. Off Lambayeque, the catfish had a maximum TL of 38 cm; the mean size of catches was 27 cm. The sex ratio was 1,0 ♂♂: 2,31 ♀♀. The fecundity was 27 eggs per individual during summer, the main spawning season, with first maturity around 17.3 cm TL. Diet of this catfish varied seasonally; during summer and autumn the main preys were Peruvian anchovy and polychaetans, In the experimental catches, the catfish represented 74,63%; Peruvian banded croacker *Paralonchurus peruvianus*, 13,50%, and Peruvian weakfish *Cynoscion analis* 4,11%. The best yields occurred in autumn (44,70 kg/ catch and 9,46 kg/fishing hour); The great fish indexes were registered at 10-19.9 m of depth (7.89 kg/catching hour) in accordance with these results and the evidence by acoustic assessments of important concentrations of catfish off Lambayeque, the authors estimate that the Peruvian sea catfish *Galeichthys peruvianus* is a potential resource to develop a new fishery.

BIO-OCEANOGRAPHIC CONDITIONS OFF PUERTO MALABRIGO, LA LIBERTAD, PERU.

YEAR 2006

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Monthly environmental and biological monitoring carried out during 2006 at Puerto Malabrigo bay (La Libertad) were compared to determine the effect of the industrial fishing activities on biotic and abiotic components of the water column. The industrial fishing landings reached 694.051,8 t during the periods March-June and November - December. The monthly mean sea surface temperature showed an irregular pattern, with minimum in April (16,1 °C) and September (15,3 °C). In the sea bottom the highest value (17,5 °C) was registered in February. Salinity fluctuated from 35.046 ups in February to 34.991 ups in March. At the sea surface, dissolved oxygen presented mean value of 1.7 mL/L (November - December) and 4.2 mL/L (August), with presence of surface anoxic areas in May, November-December. Near bottom, the oxygen contents was lower than in surface, with mean values of 0.4 mL/L in March and 2.8 mL/L in June. High mean concentration of phosphates at surface was registered in March (4.30 ug-at/L) and the lowest in April (1.62 ug-at/L); at the bottom the values were superior with a maximum in March (4.30 ug-at/L) and the lowest in April (1.62 ug-at/L); at the bottom the values were superior with a maximum in March (4.80 ug-at/L). The average surface values of silicates varied from 2.94 in February to 27.30 ug-at/L in March; at bottom varied from 5.76 to 33.70 ug-at/L. The minimum and maximum values of surface nitrates fluctuated of 0.01 to 5.45 ug-at/L, in March and 0.38 ug-at/L in May; near to bottom the minimum were registered like in March with 0.01 a 3.73 ug-at/L and the maximum in May with 0.07 a 15.86 ug-at/L. The nitrites showed mean surface <2 ug-at/L, but in central areas of the bay were >3,2 ug-at/L during April. Average volume of plankton fluctuated from 0,55 y 2,57 mL.m⁻³; smaller average values occurred in May, March and November, coinciding with some months of larger landings of the year. The coastal cold water (CCW) prevailing during all the year, validated by the presence of the phytoplanktonic indicator *Protopteridinium obtusum*.

SHRIMP POSTLARVAE MONITORING IN TUMBES, PERU. 1996-2003

Carlos Luque Sánchez

The post-larvae are the shrimp's biological stage exploited for supplying seed to shrimp farming. The species target of shrimp farming is *Litopenaeus vannamei*. Shrimps postlarvae monitoring in Tumbes's shores and mangroves tide channels was performed since 1996 to 2003. Five species were identified: *Litopenaeus vannamei*, *L. stylirostris*, *L. occidentalis*, *Farfantepenaeus californiensis* y *F. brevisrostris*. A permanent dominance of *L. vannamei* was observed and *L. occidentalis* showed important dominance in winter 1999 and spring 2002. *F. brevisrostris* had always the lowest presence. Relative abundance, expressed in postlarvae number caught per hour, presented the highest values during the ENSO event and in the hot seasons of 2002-2003; showing a continue increment during 2001-2003. The highest catches were obtained in 1997-1998. Catches, as equal as catch effort, were always higher in shores and in live tides (aguajes). In mangroves tide channels a very small catch effort was determined. Catch effort was very small for the last four years.