

IDENTIFICATION AND DELIMITATION OF MARINE INVERTEBRATES NATURAL BANKS, ARTISAN FISHING ZONES AND PROPOSED SITES FOR MARICULTURE IN THE LITTORAL OF THE ANCASH REGIÓN, PERÚ

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The results of the biooceanographic prospection, made at the coast of the Ancash Region are presented. It is oriented to identify and to delimit three main aspects (1) the natural banks of marine invertebrates, (2) the zones of artisan fishing, (3) to propose sites for mariculture. The results are referred to the three coastal provinces of the Ancash Region: Huarney, Casma and Santa. In each one the field work became in two stages: the first by border line, and the second by sea. Two boats were used, one for biological studies and the other for oceanographic studies. Oceanographic parameters like temperature of the sea, dissolved oxygen, salinity, direction and stream velocity were obtained with the equipment and methods commonly used in the Peruvian Sea Research Institute (IMARPE). The biological samples were collected by local divers and one IMARPE's professional diver. A combined technics for hard and soft substrates, was used, identifying qualitatively the commercial resources, as well as the associate fauna. Natural banks of *Argopecten purpuratus* (Molina) "scallop clam", were identified and delimited, and those of *Ensis macha* (Molina) "razor clam", *Cancer porter* (Rathbun) "jaiva" and *Trachycardium procerum* (Sowerby) "cockles". It was also registered the presence of other invertebrates like *Stramonita chocolate* (Duclos) "black snail", *Fissurella latimarginata* (Sowerby) "keyhole limpet", *Cancer setosus* (Molina) "hairy crab", *Concholepas concholepas* (Bruguier) "sea snail" and *Donax marincovich* (Coan). Thirty-six (36) zones of artisan fishing of great importance for fishermen, embarked or not, were identified and delimited. The sandy bays and coves constitute important areas of lologo squid's egg-laying and fishing; moreover, because of the great biomass of *Emerita analoga* (Stimpson) "muy-muy" registered, they are natural feeding place of an important fish as *Paralichthys adspersus* Steindachner "fine flounder". The artisan fishing is mainly sustained on fishes and mollusk: *Sciaena deliciosa* (Tschudi) "lorna drum", *Odontesthes regia regia* (Humboldt) "Peruvian silverside", *Ethmidium maculatum* (Valenciennes) "Pacific menhaden", *Engraulis ringens* (Jenyns) "Peruvian anchovy", *Isacia conceptionis* (Cuvier) "cabinza grunt", *Mugil cephalus* (Linnaeus) "striped mullet", *Paralonchurus peruanus* (Steindachner) "Peruvian banded croacker", *Loligo gahi* (Orbigny) "Patagonian squid", *Stramonita Chocolate*, *Argopecten purpuratus*, *Fissurella latimarginata*, *Octopus minus* (Gould) "Common octopus" and *Concholepas concholepas*.

Ten (10) areas were set out for mariculture activities; four in Huarney and six in Casma. There is no proposal for Santa province, because of its pollution levels in Coishco and Ferrol bays, and by the increasing aquaculture activity developed in the other two areas. Cold Coastal Waters (CCW) with salinity values 34,9-35,1 ups, own of the Peruvian Current, were detected; the direction and speed of the sea currents of each evaluated province, were strongly associated to own local pattern circulation.