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DISTRIBUCIÓN AND BIOMASS OF SOME PELAGIC RESOURCES IN PERUVIAN SEA IN SPRING 2002

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ABSTRACT

During the BIC Humboldt, Olaya y SNP2 0209-11 cruise, the hydroacoustic evaluation method was used. The sampling was done according to the methodology established by the IMARPE. The Peruvian anchoveta (7,433.429 t) was the most abundant species; it showed a coastal distribution, continuous from Paita to San Juan, and dashed towards the south of this locality, reached the greater abundance off Paita to Punta La Negra and off Cerro Azul to Tambo de Mora. The vinciguerría (5,790.910 t), widely distributed in the area evaluated was more frequent off Punta Infiernillos and Ilo, and more abundant from Chala to Ilo. The carrot lobster (2,418.569 t) was the second most abundant species in cold coastal waters (CCW), it was found continuous off Pucusana to Chicama and discontinuous off Pisco to Morro Sama. Jack mackerel (446,782 t) and Pacific mackerel (66,246 t); were scarce; the reduction of these two species has been recorded since September 1998. The longnose anchovy (28,606 t) was found coastal and scarce; catfish (146,362 t), usually coastal and sparse, frequent off Casma to Morrope and in some isolated areas off Huarney to Tambo de Mora, among anchovy and carrot lobster. The giant squid (878,920 t) was recorded in various offshore areas, mainly in subtropical surface water (SSW) and, mixes CCW+SSW in south, and to the north in equatorial surface waters (ESW) and CCW, had a Higher concentration in central zone (Punta Bermejo to Pisco).

DISTRIBUTION AND BIOMASS OF SOME PERUVIAN PELAGIC RESOURCES IN SUMMER 2003

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ABSTRACT

The cruise BIC Olaya, SNP2 and LIC IMARPE V 0302-04 was held from February 26th to April 6th, 2003, from Tumbes to Tacna. The hydroacoustic assessment followed the method established by IMARPE. The most abundant species was the anchovy (7.493.005 t) from Talara to Morro Sama, with High percentage of juveniles and a large concentration and abundance between Punta La Negra to Chérrepe. The Jack mackerel (453,597 t) in the south from Morro Sama to Atico, mainly off Ilo. The Pacific mackerel (184,555 t) was detected in small áreas scattered from near Puerto Pizarro and from Atico to Morro Sama; in southern areas shared with Jack mackerel. La samasa (331,912 t) was quite near towards the coast in various areas located between Puerto Pizarro to Chérrepe, and Pisco to Callao. The catfish (622,615 t) was located in front of Paita to Cerro Azul with a Higher concentration between Mórrope to Salaverry. The false flying fish (1,099 t) was scarce. The munida or carrot lobster (2,174,568 t) presented an important distribution from chérrepe to Morro Sama, influenced by the CCW, in part mixed with anchovy and other coastal resources. La vinciguerría

(4,356.450 t) and giant squid (887,683 t) were detected in areas far away from the coast, in SSW and mixing CCW + SSW and CCW + ESW in the north (Puerto Pizarro to Paita) the vertical distribution of both species was wide, up to 300 m depth during daylight hours.

DISTRIBUCIÓN AND BIOMASS OF SOME PERUVIAN PELAGIC RESOURCES IN SPRING 2003

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ABSTRACT

The most abundant pelagic resources observed during the hydroacoustic assessment RV Olaya and Humboldt 0310-12 were: anchovy, *Engraulis ringens*; horse mackerel, *Trachurus murphyi*; catfish, *Galeichthys peruvianus*; vinciguerra, *Vinciguerra lucetia*; munida *Pleuroncodes monodon*; giant squid, *Dosidicus gigas*; mictophids, several species, and euphausiids (*Euphausia* sp.). The anchovy (4,368.578 t) was found coastal with few High concentration areas, it showed continuous distribution from Paita to Punta Chao and since Quilca to Morro Sama; and dashed between Casma and Ocoña; the largest biomass occurred in the 6 and 7°S, vertically, from 2 to 40 m de deep. The mackerel (866,774 t) was recorded mainly between Punta Caballas to Morro Sama in scattered areas of mixed CCW + SSW. Catfish (493,659 t) was located near the coast in small areas between Paita y Chimbote. The vinciguerra (14,914.666 t) showed wide distribution, covering almost the entire area from Morro Sama to Paita until 200 mn; High density nuclei were detected from Atico to Callao, Huacho to Casma and Punta La Negra to Paita. The munida (280,448 t) was found from Pimentel to Sama near the coast, with important dense areas. The giant squid (614,247 t) was detected in various areas with the Highest concentration mainly off Paita and Talara. The myctophids and euphausiids were considered in this assessment because of its abundance, occupying areas of mesopelagic resources.

DISTRIBUCIÓN AND BIOMASS OF SOME PERUVIAN PELAGIC RESOURCES IN SUMMER 2004

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ABSTRACT

The RV Olaya, SNP2, Imarpe V and IMARPE VI 0402-03, from February 9 to March 26, 2004, conducted a hydroacoustic assessment according to the methodology established by the IMARPE. The anchovy biomass was the most abundant (11.295.645 t) with wide coastal distribution, especially between Punta Gobernador and Callao. The Jack mackerel (239.356 t) and Pacific mackerel (179.374 t), decreased since. El Niño 1997-98 event, were found in sporadic and scattered areas. The samasa (240.412 t) was recorded very coastal continuously from Talara to Mórrope and Pucusana to Pisco. The vinciguerra (3.556.800 t) was widely distributed, with Higher concentration between Talara and Punta la Negra. Catfish (163.486 t) was found in isolated coastal areas, especially in the north and center. The camotillo or mote sculpin was detected in very small coastal areas, off Chimbote and Ilo. The carrot lobster (1.163.594 t) presented important distribution off Cherrepe to Morro Sama. The giant squid (858.568 t) achieved wide distribution and High abundance

of Puerto Pizarro to Chicama; probably the distribution and abundance of this species, like the vinciguerra, is broader than that determined in this cruise. The oceanic myctophids has also a wide distribution north to south.

DISTRIBUCIÓN AND BIOMASS OF SOME PERUVIAN PELAGIC AND MESOPELAGIC RESOURCES IN SPRING 2004

Mariano Gutiérrez, Salvador Peraltilla y Luis Vásquez

ABSTRACT

The hydroacoustic assessment method was used during the BIC Olaya 0411-12 cruise carried out between Punta Infiernillos (14°30'S) and Paita (5°00'S), up to 60 nm off the coast. The sampling was conducted according to the methodology established by the IMARPE, realizing 41 transect and 72 hauls. Hydrographic profiles were implemented well in sections of Pisco, Callao, Punta Bermejo, Chimbote, Pacasmayo, Punta Aguja and Paita, in order to provide information of resource-environment correlation. North of Callao oceanographic conditions were predominantly warm; to the south, some light nuclei with negative and positive thermal anomalies were seen. Two main pelagic species were evaluated; Peruvian anchovy (*Engraulis ringens*), distributed throughout the assessed area as coastal communities that showed some discontinuity, especially in the north, and múnida (*Pleuroncodes monodon*), coastal and continuous from Punta Infiernillos to Chérrepe. The mesopelagic species evaluated were: vinciguerra (*Vinciguerra lucetia*), with a sporadic and limited distribution to areas west of the continental shelf, and giant squid (*Dosidicus gigas*), which had a discontinuous distribution, generally outside de 25 nm off the coast. Other species tested were the coastal pelagic samasa (*Anchoa nasus*), and camotillo (*Normanichthys crockeri*), and the Demersal catfish (*Galeichtys peruvianus*).

PHYSIC OCEANOGRÁPHICS IN SPRING 2004

Luis Vásquez Espinoza

ABSTRACT

The author describes the physical conditions of the marine environment observed during the Hydroacoustic assessment of pelagic resources BIC Olaya 0411-12, from Punta Infiernillos (14°30'S) to Paita (5°S). Off Punta La Negra to Callao conditions were associated with the advection of warm waters of the west; in north and south of this area the conditions were normal. Surface equatorial waters (SEW) were recorded off Supe to Callao, and subtropical surface water (SSW) and cold coastal waters (CCW) in a strip very near to the coast. North of 6°S there was a large area of mixed SEW + SSW +CCW.