

NOEMI JACKELITH COTA MAMANI. 2012. Escala de madurez gonadal del lenguado *Paralichthys adspersus* (Steindachner 1867)

ABSTRACT

Paralichthys adspersus "fine flounder" is endemic species from the coasts of Perú and Chile. This species is valuable and studies show the feasibility of its culture. The gonadal development classification in maturity scales is a source of information to understand the species reproductive cycle, necessary for resource management in wildness and in captivity. In this study 162 fishes caught from the central coast of Peru were used. The fishes were biometric and biologically evaluated. Ninety six (96) ovaries and sixty six (66) testes were analyzed and processed histologically.

The development of gametes and gonads microscopic and macroscopic were characterized; also ovary homogeneity, morphometric characterization of oocyte populations of each stage of gonadal maturity, sex ratio for total length groups, the first maturity size and other parameters of gonadal development indicators, were evaluated. Females accounted for 59,3% while 40,7% males. The oocytes were classified in: Immature, Pre-vitellogenic, Vitellogenic, Mature and Hydrated; in males, spermatogenic were classified as: Spermatogonium, Spermatocyte, Spermatid and Spermatozoa. In addition, were recognized Post-ovulatory Follicles (POF) and Atresia in females. In this study, females showed no significant differences in oocyte development in any part of the gonad; in the case of males, there were differentiation in Growth Area (GA) and Collection Area (CLA). The ovaries were classified microscopically and macroscopically in the following gonadal maturity stages: Immature, Maturing, Mature, Spawning, Recovery and Inactive; testes were classified in: Immature, Maturing, Mature, Spent, Post-spent and Inactive. The sex ratio showed a positive growth of females to greater lengths. Most of the catch was represented by mature, spawning or spent fish in spring and summer. The IGS and HIS are good indicators of gonadal development in females; however, K is not a good indicator in both sexes. Prevalence of nematode parasite *Philometra* sp. was 19.14% and higher in females, no abnormalities caused by infection or effects on gonadal maturation, were observed. Comparison between macroscopic and microscopic characteristics of the gonads of captivity fish, showed no difference from the gonads from wild fish.