

Interdital fish assemblages of the central Chilean coast: Diversity, abundance and trophic patterns

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Abstract

Diversity and abundance patterns as well as trophic structure were investigated for rocky tidepool fishes of the central Chilean coast. Six mid-intertidal rock-pools were sampled from January to October 1989 using rotenone and handnets. Eleven species of fish representing eight families totaling 597 individuals were captured during the 10-month sampling period. Six of these species belonging to Tripterygiidae, Blenniidae and Clinidae were year-round residents of rock-pools. Five other species occupied these pools temporarily. The girellids *Graus nigra* and *Girella laevis* were predominant species in the tidepools investigated, although their presence was markedly seasonal (found mainly during summer and fall) and were represented almost exclusively by juvenile individuals. A similar phenomenon was observed with most of the transient species, which indicates that tidepools are important nursery areas for these species. The intertidal fish assemblage studied was primarily composed by carnivorous species (73%) which preyed mainly upon benthic crustacean prey typical of these habitats. No strictly herbivorous fish were found, although two species (*G. laevis* and *Scartichthys viridis*) included an important proportion of algal material in their diets. Niche overlap among these species was relatively low (less than 50%) in most species-pairs suggesting that some degree of resource partitioning has occurred in this fish assemblage.