An analysis was made of the distribution and abundance of red squat lobster (Pleuroncodes monodon) larvae off the mouth of the Loa River, northern Chile (20°40´-21°20´S) during oceanographic cruises in January, May, August and October 2003. A total of 20 oceanographic stations were occupied, with zooplankton samples taken using Bongo nets towed from the surface to 100 m depth. Other data obtained at each station included temperature, dissolved oxygen, and seawater density. Maxima of abundance of these larvae were recorded in January and August, with a minimum in May. On N-S tracks the highest abundances were recorded in the northern sector. A more homogeneous distribution of abundance was observed in October. On E-W tracks a differentiated pattern was observed, where zoea stages III-V and megalopaes occurred in the oceanic (westward) samples. Also, a seasonal tendency was noted, with foci of larval abundance associated with stations having average temperatures of 14.0-16.0°C and dissolved oxygen concentrations of 1.58 - 4.55 mL·L-1.

**Keywords**

Pleuroncodes monodon, Galatheidae, larval stages, space-temporal variability, abundance, northern Chile.