The Peruvian coast has long been home to highly specialized fishing communities, and it is believed that the rich coastal waters that fostered these communities contributed to and supported the growth of the largest empire in the America’s. Different regions of Peru utilized different methods for fishing; the fishermen of the northern coast of Peru have utilized reed boats with nets, and lithic net weights, or pesas, for centuries, and this method is still used by some traditional fishermen today. While some archaeological research has been carried out on the water crafts, techniques, and a number of the tools utilized for fishing in the Pre-Hispanic and Colonial periods, very little research has been conducted on the long-used pesas. The Carrizales site in the Zaña valley contains several occupations, spanning both the Prehispanic and Colonial eras, and evidence of fishing exists in the archaeological record of the site. An extensive surface survey and careful collection and analysis of the lithic fishing weights, yielded data that allows for a comparison of the fishing practices of the inhabitants throughout the different occupations to be made. Additional statistical analysis revealed differences in the characteristics of the pesas throughout time.