Brazil is a large exporter of tuna. In 2006, the European Union imposed a barrier to the importation of Brazilian tuna because of the lack of information on histamine levels. This is due to the fact that tuna is susceptible to histamine build up when inadequate storage temperature and hygienic conditions are prevalent during capture, transportation and storage. Furthermore, high histamine levels in foods may cause adverse effects to human health – histamine poisoning. The objective of this study was to gather information regarding histamine levels in tuna from the Brazilian coast. A total of 1,270 samples were collected from 2007 until 2011 by official authorities. The samples were analyzed by ion-pair HPLC, post-column derivatization with o-phtalaldehyde and fluorimetric detection. The number of samples analyzed varied with the year: 551 samples in 2007, 261 in 2008, 135 in 2009, 206 in 2010 and 117 in 2011. The percentage of samples containing histamine varied with the year of capture - 18.8% in 2011, followed by 14.1% in 2010, 9.8% in 2007, 2.2% in 2009, and 0.4% in 2008. In the majority of the samples, histamine levels were very low, ranging from nd (<0.56 mg/kg) to 27.95 mg/kg. Only one lot of samples from 2007 contained high levels of histamine (mean of 631.97 mg/kg). This was the only lot of sample which was not in compliance with European legislation and represented 0.5% of the samples analyzed. Based on these results the tuna from Brazil can be considered of very good quality.

Financial support: Fapemig, CNPq, MPA, FINEP.