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Alimentary techniques for preservation of Escamoles ant eggs (*Liometopum apiculatum M*) edible Insects in Mexico

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The consumption of Escamoles ant eggs have been extended from rural communities to high class restaurants at important urban cities of Mexico and demand of consumers very was much increased during the last two decades, however insect availability at semi-desert zones is limited to spring season. The aim of this research is to find the optimum conditions to preserve Escamoles without the loss of nutritional macronutrients value or sensory characteristics. Insect samples were gathered in Actopan, Hidalgo State, during early spring on March 2018, at a xerophyte thicket environment. Ant eggs were divided in five lots of 250 g each and keep into polyethylene bags vacuum-packed two of them storage refrigerated at 4°C for up to 2, 4 months, one frozen at -20°C for 12 months and last bag lyophilized

at -50°C and 25-50 μ inner-press for up to one year, after one year Escamoles were re-hydrated and re-analyzed. The macronutrients analyzed in samples: were proteins, lipids, inorganic material and fiber content following AOAC (1995) methods, sensory evaluation was conducted by 50 non trained taste panels. The data so obtained for fresh insects were proteins 36%, lipids 37%, inorganic material 4%, fiber 2%, soluble carbohydrates 21%. Variation after storage was $\pm 0.60\%$ in proteins and lipids. The panelist's didn't distinguish the lyophilized from the fresh samples, according to different tests. Changes in rancidity, flavor, odor and texture were not reported. Refrigerate and frozen alimentary techniques are desirable for storage up to year, lyophilization for consumption after a year.

Biography

Karina Sanchez Herrera is Coordinator of the Degree at Autonomous Metropolitan University, Mexico City. She has participated as a speaker with more than 50 papers in poster and oral mode in more than 35 congresses at national and international level. As a researcher she have published 13 articles of various researches in internationally recognized scientific journals.

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