

Effective communication and interdisciplinary research on the idea that size matter for safer lokan delicacies in Sabah

Abstract

Many makeshift stalls have increased in numbers with the rise popularity of the grilled lokan along Sulaman Road near Kota Kinabalu better known as Salut. This development has helped increased the local community economy. For seafood only the species *Polymesoda expansa* of lokan is sold serving in three sizes: small(S), medium (M) and large (L). The study objective is to monitor the heavy metals concentration of lokan according to size and customer demand. Samples were analysed by Flame Atomic Adsorption Spectrometry (FAAS) individually. The results yielded the mean of heavy metals for Pb were $6.33 \pm 8.82S$, $4.33 \pm 4.58M$, $3.85 \pm 1.96L$, for Cu were $15.96 \pm 16.86S$, $11.41 \pm 10.60M$, $6.61 \pm 5.66L$, for Cr were $3.39 \pm 2.78S$, $1.52 \pm 2.11M$, $0.61 \pm 0.60L$, for Cd were $1.90 \pm 1.00S$, $1.35 \pm 1.34M$, $0.70 \pm 0.38L$, for Zn were $52.08 \pm 28.37S$, $75.37 \pm 36.80M$, $94.00 \pm 38.16L$, respectively. The finding shows large size lokan contains less heavy metal than small size lokan except for Zn. Although larger lokan seem safer to eat, preliminary observation has shown that consumers prefer smaller lokan because it is cheaper than the larger ones. The study shows that most consumers are still unaware of the impact of heavy metals in lokan that they consume affecting their health adversely. There had been consumers that ate grilled lokan in the study area experiencing symptoms of heavy metals toxicity. It is believed that by favouring the larger and mature lokan will enable them to increase producing progenies for continuous abundant supply thus making it a sustainable income generation project. Changes of trend like consumers opting to eat large lokan because it is safer to consume will be an incentive for supplier to be more selective in harvesting bigger lokan. This study revealed that both sellers and consumers believe that an effective information campaigns can help not only for the safe consumption of lokan and other aquatic food from this area but also make their supply more sustainable. The findings of this study will be the basis for the formulating of the public health information campaign to all stakeholders with regards to safe lokan consumption and its sustainability.