

COMPARING THE DRYING BEHAVIOUR OF A MUDSKIPPER

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ABSTRACT

The drying behaviour of a mudskipper under various drying conditions was investigated. The study was carried out to find out, among the various available drying models, which of those models best described the drying behaviour of mudskipper by statistically comparing them. Freshly harvested mature samples of a mudskipper were obtained from Fimie market, along Abuloma road, Port Harcourt, Rivers State. The samples were thoroughly washed to remove dirt and mud on its surface before it was cut into thin-layers of uniform sizes of 3cm. The samples were then subjected to three different drying conditions of $DC_{1(11.3\% \text{ w.b., } 60^{\circ}\text{C})}$, $DC_{2(11.3\% \text{ w.b., } 80^{\circ}\text{C})}$, $DC_{3(11.3\% \text{ w.b., } 100^{\circ}\text{C})}$ and the data obtained from each drying condition was fitted to three (3) drying models. Non-linear regression analysis was used to determine the model parameters, while the highest value of the coefficient of determination (R^2) and the least value of the standard error of the estimate calculated from the data generated from the models formed the basis for determining the model of best fit. The Page drying model gave the best fit for the mudskipper drying.

Keywords: Mudskipper, Drying, Drying Model.