Abstract

This thesis has allowed us to demonstrate that geometric morphometry MG and more specifically the benchmark methodology that we used in a framework 2D; via the Procruste overlay on digitized images of the beaks on the upper side can be widely practiced to answer our questions. MG is a truly tool a powerful tool for visibly identifying and visualizing conformational changes beaks.

In this thesis using modern techniques of morphometry based basically on the configuration of landmarks or landmarks that are part of the geometric morphometry. The latter makes it possible to synthesize, on the scale of precision desired geometry of an object. It has an exact mathematical foundation and rigorous which guarantees robust statistics. The main objective is to study and quantify the variability of the beak shapes (conformations + centroid sizes) of the two genotypes of normal local chicken and local chicken bare neck (Na na), a total of 66 local normal chicken and 21 local chicken bare neck (Na na).

The results showed a clear differentiation, Several fields of analysis Multivariate statistics have been developed. the recorded form differences mainly involve the parameters of conformations (shapes) of the local chicken galus galus, while the contribution of the the beak (size) is usually weak. Both genotypes have differences important in the geometry of their beaks. The large differences calculated by the generalized variances revealed the heterogeneity of the beak forms, the visualization deformations of the beaks showed well the differences of conformations.

Finally, we can say that our results reveal the great interest of MG in the study, on the one hand, we confirmed the hypothesis of the variability between the beaks of the two stem, and on the other hand, this prompted us to continue studying to find a solution radical to the problem to be solved.

Keywords: beak, geometric morphometry, benchmarks, Procrust overlay, conformation, form.