

Title of the Project: **Analysis of Dietary value of the soft tissue of the freshwater crab *Barytelphusa cunicularis***

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SUMMARY OF THE PROJECT

Wayanad is an economically and educationally backward remote district of Kerala State with maximum number of tribal settlements. Most of the tribes suffer from poverty and malnutrition. This crab species, *Barytelphusa cunicularis* is edible and forms a cheap source of animal protein to the poor, malnourished tribes. It is widely distributed in the paddy fields and streams of Wayanad and the local tribes catch them with traditional baited traps. *Barytelphusa cunicularis* coexists with two other crab species-*Travancoriana schirnerae* and *Cylindrotelphusa* sp. But *Barytelphusa* is the most popular because of its size and meat quality.

Though information is available on the nutritive value of brackish water and marine crabs, that of freshwater crabs is meager. Dietary value analysis is very important from the nutritional point of view. In the present study, we analyzed the nutrient value such as total protein, carbohydrate (oligo and polysaccharides), total free amino acids, total lipid, cholesterol, fatty acids and moisture content of both claw and body meat of adult male and female *B. cunicularis*. The present investigation would be the first of its kind on the nutritive value of the soft tissue of claw and body meat of male and female of an edible freshwater crab.

The meat of *B. cunicularis* is low in fat, high in protein and is a moderate source of omega-3 fatty acids. The values of protein, carbohydrates, total free aminoacids, lipid, and moisture content are on par with that of brackish water/marine crabs. *B. cunicularis* meat is low in saturated fatty acids when compared to those values assessed for marine crabs. Freshwater crab meat is generally low in fat which is good for health. Carbohydrates constituted a minor percentage of the total biochemical composition of *B. cunicularis* meat. The high concentration of free aminoacids in *B. cunicularis* meat has a major contribution to the flavour. The proportion of total protein, carbohydrates, free amino acids, polyunsaturated fatty acids is found to be higher in males than females. The total cholesterol content of *B. cunicularis* meat is lower than that reported for marine crabs. On the otherhand moisture content values are higher than that reported for marine crabs.

The nutritive value of *B. cunicularis* meat is much higher or on par with that of brackish water/marine crabs. To conclude, *B. cunicularis* meat is an excellent, cheap source of high quality meat to include in our diet.