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# ENVIRONMENTAL MICROBIOLOGY & MICROBIAL ECOLOGY

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## ***Pichia kudriavzevii* NN/SG II potential yeast strain isolated from Gora- a rice based fermented beer traditionally prepared by the indigenous Koloï tribes of Tripura**

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**G**ora a rice based fermented beer traditionally prepared by the Koloï tribes of Tripura using indigenous brewing techniques. The present study aimed to isolate and identify the indigenous yeast flora of 'Gora' and evaluate its fermentation ability comparison with a industrial strain. Culture dependent approaches- phenotypic characterization were done to investigate the responsible yeast species and identified as *Pichia kudriavzevii* which was further confirmed by the molecular identification using partial 18S rRNA gene sequence. The reducing and non-reducing sugar content of 'Gora' was  $1.19 \pm 0.999$  and  $1.04 \pm 0.010$  mg/ml respectively. Whereas the carbohydrate, protein and Total alcohol content of the rice beer 'Gora' was  $0.56 \pm 0.101$ ,  $11.96 \pm 0.001$  mg/ml and  $6.40 \pm 0.008$  % v/v. respectively. The comparative analysis of the isolate *Pichia kudriavzevii* NN/SG II with the industrial strains in laboratory condition shows significant similarities in the nutritional parameters and alcohol percentages with the industrial strain. This is the first scientific investigation of indigenous yeast strain of 'Gora' from this region may provide sufficient background and potentiality for its scientific and logical appreciation and promoting the microbial legacy of indigenous alcoholic beverage as an immaterial cultural heritage for future as well as small scale commercialization for rural livelihood.

### **Biography**

Nandita Nath is a Research Scholar at the Tripura University, India. She has extended his valuable service for many years and has been a recipient of many award and grants. Her international experience includes various programs, contributions and participation in different countries for diverse fields of study. Her research interests reflect in his wide range of publications in various national and international journals.

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