Jungle yeast

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This is researcher Javier Carvajal collecting yeast in Ecuador. Credit: Javier Carvajal

A new species of yeast has been discovered deep in the Amazon jungle. In a paper published on-line in *FEMS Yeast Research*, IFR scientists and colleagues from Pontificia Universidad Católica del Ecuador describe the novel characteristics of *Candida carvajalis sp. nov*.

Yeasts have long been the powerhouses of our food and fermentation industries. Each new species adds to our knowledge of the yeast gene pool and even small genetic differences have the potential for major economic impact. Furthermore, as oil reserves diminish, the race is on to find novel varieties for use in sustainable biofuel production.

Dr Steve James said "It's a race against time. We know that massive loss of species diversity is occurring worldwide. Our colleagues in Ecuador

appreciate the importance of collecting, characterising and subsequently preserving what remains."

Javier Carvajal, head of the Ecuadorian team, whose father Enrique discovered the yeast while oil prospecting and in whose honour the new species is named, said: "The four different climatic regions of Ecuador and fermentations performed by ancient indigenous populations make Ecuador a promising country in which to find novel yeast species".

Enrique Carvajal is not a biologist but an attorney. As a home brewer, he understands the importance of yeasts to food processes. He recovered isolates of the new yeast species from rotten wood and fallen leaf debris samples collected near the town of Dayuma, in Orellana province, in the central Amazonian region of Ecuador.

Dr Ian Roberts, Curator of NCYC said "Our collaboration with the team in Ecuador is of inestimable value. Together we aim to ensure that irreplaceable biodiversity if is preserved and available to support innovation in food, beverage, and healthcare. It is already clear that our joint collection will become increasingly valuable to chemical engineers seeking novel yeast properties to confer advantages both in second generation biofuel production and in a range of other industrial fermentations ".

Source: Norwich BioScience Institutes