GENERAL CHARACTERISTICS OF YEASTS ISOLATED FROM THE MCMURDO DRY VALLEYS REGION, ANTARCTICA (ABSTRACT)

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The authors reported general characteristics of yeasts strains isolated from Antarctica. During the austral summer of 1985–1986, water and sediment samples were collected from Lake Vanda, the South Fork and the Labyrinth of the Wright Valley, and Ross Island in the McMurdo Dry Valleys region, Antarctica.

The samples were kept in the frozen condition at -20° C. The frozen samples were slowly melted at 4° C in a refrigerator overnight and were used for a culture, and yeasts were isolated under an aerobic condition.

Twenty-six strains of yeasts were isolated in the samples (Lake Vanda, 10 strains; South Fork, 3; Labyrinth, 9; Ross Island, 4). These yeasts grew at 0–30°C with optimum temperature at 20–30°C. The colors of yeasts were pale white, pale yellow, pale purple, pink, or orange, with glossy or not. The forms of colonies were flat, warty, or filamentous. Giant colonies of yeasts ranging from 15 to 68 mm in diameter were also observed. Morphological features of each strain were much various with a spherical, oval or global shape, but in some cases a mycerial or pseudomycerial form. Thus, these yeast strains are very interesting from a taxonomical viewpoint.

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