1052-05-193   **Sergi Elizalde*** (`sergi.elizalde@dartmouth.edu`), Department of Mathematics, Dartmouth College, 6188 Kemeny Hall, Hanover, NH 03784. *Descent sets of cyclic permutations.*

The descent set of a sequence $a_1 a_2 \ldots$ is the set of indices i such that $a_i > a_{i+1}$. Consider the $n!$ cyclic permutations of $\{1, 2, \ldots, n+1\}$ written in one-line notation, and for each one of them remove the last entry $\pi(n+1)$. We show that the descent sets of these objects have the same distribution as the descent sets of permutations of $\{1, 2, \ldots, n\}$. We give a bijective proof of this fact, as well as an alternate derivation using work of Gessel and Reutenauer. (Received August 27, 2009)

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