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In this work, a new five-parameter beta-transmuted Pareto distribution is introduced and studied. Some important properties of the distribution are discussed and explicit formulas are derived for the mean, mean deviation, entropies, order-statistics and the reliability analysis. The method of maximum likelihood is proposed to estimate the parameters of the distribution. We illustrate the usefulness of the proposed distribution by presenting its application to real-life data. (Received September 14, 2016)