Feature selection is an important preprocessing step for classification problems. It deals with selecting near optimal features in the original dataset. Feature selection is an NP-hard problem, so meta-heuristics can be more efficient than exact methods. In this work, Ant Lion Optimizer (ALO), which is a recent metaheuristic algorithm, is employed as a wrapper feature selection method. Six variants of ALO are proposed where each employ a transfer function to map a continuous search space to a discrete search space. The performance of the proposed approaches is tested on eighteen UCI datasets and compared to a number of existing approaches in the literature: Particle Swarm Optimization, Gravitational Search Algorithm, and two existing ALO-based approaches. Computational experiments show that the proposed approaches efficiently explore the feature space and select the most informative features, which help to improve the classification accuracy.