The vectorial status of anopheline species prevalent at Ampagala in the wet zone of Sri Lanka, where an epidemic outbreak of Plasmodium vivax occured, was investigated. The study was carried out during June to December 1983. The results showed the presence of thirteen (13) species of anophelines (An. aconitus, An. annularis, An. barbirostris, An. culicifacies, An. jamesi, An. karwari, An. maculatus, An. nigerrimus, An. pallidus, An. subpictus, An. tesselatus, An. vagus and An. varuma) showing monthly variations in prevalence. All these species showed some attraction to man. An. culicifacies and An. subpictus were found resting indoors. Four (4) species An.culicifacies, An. vagus, An. jamesi and An. karwari were found infected with Plasmodia. The observation seem to suggest An. culicifacies the already known vector, to be the most efficient species in the transmission of human malaria in the area. Most of the other species specially those found with natural infections of Plasmodia may be playing some role in transmission, particularly when present in high densities and in the presence of high parasite carriers. Therefore most of the species of anophelines in the area could be potential vectors of human malaria.