**Abstract**

As we talk about diseases certainly we have to say about the vectors and the major disease causing vectors is mosquito. The natural products have been a rich source of medicines since they provide a host of many bioactive compounds with a wide range of applications. Anopheles stephensi which transmits plasmodium responsible for malarial fever. Vector control can be achieved by using insecticidal larvicidal organophosphorates or synthetic compounds. The toxicity of the chemical has side effects. More over the constant use of these chemicals will lead to gain the resistance to these mosquitoes. As a result Investigations were made to evaluate the larvicidal activity and smoke repellent potential of Spathodea campanulata P.Beauv. (Family: Bignoniaceae) to identify suitable bio active compound in selected medicinal plants. The present paper deals with larvicidal and mosquito repellency activity of Spathodea campanulata. The extracts of Spathodea campanulata were found most effective with LC50 value of 1.343, 1.607, 1.981, 2.165, 2.432 of I, II, III, IV and pupa respectively. The smoke toxicity was more effective against the Anopheles stephensi. Smoke exposed gravid females oviposited fewer eggs when compared to those that were not exposed.