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In-vitro anti- inflammatory and anti diabetic studies of *Myristica fatua var. magnifica* (Beddome) Sinclair, an endemic swamp species.

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Abstract

Myristica fatua var. magnifica belonging to family Myristicaceae, is an endemic tree confined to a very few *Myristica* swamps in the Western Ghats. The present study deals with the anti-inflammatory and anti-diabetic activities of different parts of *M. fatua*. Water extract of the leaf at the concentration of 20 μ g & 10 μ g showed 88% prevention against hypotonic solution-induced haemolysis on RBC membrane stabilisation. Ethyl acetate extract of aril exhibited a significantly good activity (90%) against inflammation, which is better than the action of standard drug sodium diclofenac (82%). Hexane extract of kernel inhibited α -amylase enzyme to an extent of 93% at 20 μ g while testa methanolic extract showed 95.36% of inhibition against α -amylase enzyme at 10 μ g. Kernel ethyl acetate extract showed 96.73% of inhibition against α -glucosidase enzyme at 20 μ g which is on par with the standard acarbose. From the present study it is clear that parts of *M. fatua* have anti-inflammatory as well as anti-diabetic property. Further study on these lines is in progress.

Key words: *Myristica* swamps, *Myristica fatua*, Anti-inflammatory, α -amylase, Anti-diabetic.