Unusual Tropane Alkaloid Pattern in Two African Convolvulaceous Species. Phytochemistry and Chemotaxonomy of the Convolvulaceae, Part 20 [1]

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An unusual and complex tropane alkaloid pattern has been detected in the root bark of *Astripomoea malvacea* and in the whole plant of *Falkia repens* (Convolvulaceae) by GC-MS analysis. The specific profile of both species is characterized by the presence of aliphatic 3-acyloxytropanes/-nortropanes (exclusively in *A. malvacea*; predominantly in *F. repens* in co-occurrence with a few aromatic as well as arylalkyl acyl congeners). The principal alkaloid of *A. malvacea*, astrimalvine A N-oxide [3β-(3-tigloyloxy-2-methylbutyryloxy)tropane *N*-oxide], isolated and structurally elucidated by detailed spectroscopic analysis, represents the first *N*-oxide of a 3β-tropanol derivative in the Convolvulaceae. Its minor tertiary congener astrimalvine B [3β-(3-hydroxy-2-methylbutyryloxy)tropane] turned out to be a metabolite of both convolvulaceaous species. This is the first phytochemical report on the African genera *Astripomoea* and *Falkia*.

Key words: *Astripomoea malvacea*, *Falkia repens*, Convolvulaceae, 3-Tropanol Esters, Astrimalvine A *N*-Oxide