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## Phytochemical investigation of *Cadaba natalensis* roots

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The roots of *Cadaba natalensis* (Capparaceae family), known as Tssatssassana or Ndoda Ya Munhama in Southern Mozambique have been used to treat tuberculosis. Several species of the genus *Cadaba* have been studied phytochemically, although no previous studies have been carried out on *C. natalensis*. The aim of this work was to isolate and characterize some phytochemical constituents present in the roots of this plant. The isolation of the compounds was done by chromatographic methods and two novel compounds together with five known compounds were isolated. The novel compounds were by spectroscopic techniques characterized as dimeric a tetrahydroisoquinoline similar to thalifoline and 4-oxazolidine derivatives and a 2-oxazolidine derivative that for the first time was obtained from a natural source. This is the first study in which the rare five membered ring structures (2 and 4-oxazolidine derivatives) are isolated from a plant, although similar compounds have previously been isolated from marine sources. Beside these three compounds, also thalifoline, N-methylcorydaldine,  $\beta$ -sitosterol and nepetin were obtained. The 2 and 4-oxazolidine derivatives have been reported to possess antimicrobial, antibacterial and anticancer activities, while tetrahydroisoquinoline derivatives can have vasorelaxant activity. The structures of isolated compounds were characterized by 1D and 2D NMR spectroscopy, HRESI-MS and by the comparison with the reported spectroscopic data for the known ones.

## Biography

Juliao A Monjane is currently a PhD candidate at Lund University in Sweden. His research project is related with isolation and characterization of compounds with interesting biological activities derived from selected Mozambican medicinal plants used locally in antibacterial therapy. He teaches Bachelor's students at Eduardo Mondlane University in Mozambique. His research interests are focused on areas related with natural products, organic synthesis and nuclear magnetic resonance spectroscopy.

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