

Chemical Profiling of *Farsetia Aegyptia* Turra and *Farsetia Longisiliqua* Decne. and Their Chemosystematic Significance

Authors : Mona M. Marzouk, Ahmed Elkhateeb, Mona Elshabrawy, Mai M. Farid, Salwa A. Kawashty, EL-Sayed S. Abdel-Hameed, Sameh R. Hussein

Abstract : The genus *Farsetia* Turra belongs to the family Brassicaceae and has approximately 30 accepted species distributed worldwide. Amongst them, *Farsetia aegyptia* Turra and *Farsetia longisiliqua* Decne. are two common species characteristic to the Egyptian flora. The present study considers the first characterization of the chemical constituents of *F. longisiliqua*, aiming to compare with those identified from the medicinal species (*F. aegyptia*). Additionally, the chemosystematic relationships between the two studied species were evaluated and highlight the medicinal importance for *F. longisiliqua*. The chemical profiling of their aqueous methanol extracts were carried out using the LC-ESI-MS technique and afforded 54 compounds belonging to different chemical groups. Flavonoids are the major constituents and are represented by 32 compounds (two C-glycosyl flavone, four flavones, and 26 flavonols). Their structural variations and common constituents confirmed the chemosystematic significance of the two species. Moreover, the flavonoid profiles showed major common constituents between the two investigated species, which predicted the medicinal importance of *F. longisiliqua*.

Keywords : brassicaceae, chemosystematics, farsetia, flavonoids, glucosinolates, LC-ESI-MS

Conference Title : ICMPPNP 2022 : International Conference on Medicinal Plants, Pharmacognosy, Phytochemistry and Natural Products

Conference Location : Rome, Italy

Conference Dates : March 03-04, 2022