

https://dspace.org/

The composition, geographical variation and antimicrobial activity of Mentha longifolia subspecies polyadena (Lamiaceae) leaf essential oils

Petkar, Sahir Yusuf

2008-09-26T08:54:38Z
http://hdl.handle.net/10539/5693

Downloaded from a DSpace repository. https://dspace.org/

List of Figures

1.1 Geographical distribution of *Mentha longifolia* subspecies *polyadena* in South Africa.....3

1.2 *Mentha longifolia* subspecies *polyadena* during the flowering season.....3

1.3 Scanning electron micrograph of the leaf surface of *Mentha longifolia* subspecies *polyadena* showing one of many oil glands.....5

1.4 Scanning electron micrograph of the abaxial leaf surface of *Mentha longifolia* subspecies *polyadena* showing one of many multi-cellular oil glands after removal of the outer cuticle layer.....5

1.5 **(A)** name plate describing some of the medicinal uses of *Mentha longifolia* for the treatment of respiratory ailments; **(B)** name plate describing the use of *Mentha longifolia* in the management of headaches and colds (Kirstenbosch Botanical Garden, Cape Town)…….....6

2.1 Air-dried plant material was cut up and the essential oil was isolated by hydrodistillation.....14

2.2 Diagram representing a 96 well micro-titre plate used to measure the minimum inhibitory concentration of the samples tested.....18

3.1 Graph showing the relative amounts (%), of selected essential oil compounds from different populations.....23

3.2 Dendrogram obtained from the cluster analysis performed on the essential oil composition (Table 3.2), using the unweighted pair-group method with arithmetic average (UPGMA).....24

3.3 HPLC profiles for the solvent extracts of *Mentha longifolia* subspecies *polyadena* of the eight populations…….....27

3.4 Dendrogram obtained from cluster analysis of the microbiological data as presented in Table 3.2 (essential oils only).....37