

# Di- and Triterpenoids from the Liverwort *Blepharidophyllum densifolium*\*\*

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*Blepharidophyllum*, Jungermanniales, Scapaniaceae, *ent*-kauranes, *ent*-pimaranes,  
Dammaraanes

22 *ent*-kaurane and *ent*-pimarane type diterpenoids, ten of which are new, *ent*-19-acetoxycaur-16-en-15-one, *ent*-19-oxo-kaur-16-en-15-one, *ent*-11 $\alpha$ -acetoxyc-20-oxo-kaur-16-en-15-one, *ent*-11 $\alpha$ -acetoxyc-15-oxo-kaur-16-en-20-acid, *ent*-11 $\alpha$ -acetoxyc-7 $\beta$ -hydroxyc-kaur-16-en-15-one, *ent*-11 $\alpha$ -acetoxyc-19-hydroxyc-kaur-16-en-15-one, *ent*-19-acetoxyc-11 $\alpha$ -hydroxyc-kaur-16-en-15-one, *ent*-11 $\alpha$ -acetoxyc-6 $\beta$ ,19-dihydroxyc-kaur-16-en-15-one, *ent*-11 $\alpha$ -acetoxyc-19-hydroxyc-kauran-15-one and *ent*-19-acetoxyc-11 $\alpha$ -hydroxyc-kauran-15-one were isolated from the liverwort *Blepharidophyllum densifolium*. Furthermore three known triterpenoids cabraleadiol, cabraleadiolacetate and shoreic acid have been found. Their structures were established by NMR spectroscopy.