(10·4%), 1-octen-3-ol (8·0%), β-cubebene (3·3%), α-humulene (2·6%), germacrene D (2·2%) and limonene (2·1%).

Plant. Scutellaria parvula Michx. *Source.* Colpoy Bay, Ontario. *Uses.* Not known. *Previous work.* None.

Terpenoid composition. α-Bisabolol (20·6%), *trans*-α-bergamotene (13·4%), β-bisabolene (6·0%), caryophyllene (5·2%), α-terpineol (4·0%), δ-cadinene (4·0%), *cis*-α-bisabolene (3·5%), α-cadinol (3·0%), *trans*-β-farnesene (2·6%), caryophyllene oxide (2·2%) and α-humulene (2·1%).

Plant. Stachys germanica L. *Source.* Guelph, Ontario. *Uses.* Not known. *Previous work.* None.

Terpenoid composition. β-Pinene (15·5%), α-pinene (8·4%), *cis*-ocimene (8·1%), *trans*-β-farnesene (7·0%), 1,8-cineol (6·0%), germacrene D (5·4%), limonene (2·2%), sabinene (1·8%), *p*-cymene (1·6%), myrcene (0·9%) and α-terpineol (0·7%).

Plant. Teucrium canadensis L. *Source.* Lake Mississqui, Quebec. *Uses.* Not known. *Previous work.* None.

Terpenoid composition. Germacrene D (32·7%), caryophyllene (13·6%), δ-cadinene (13·0%), α-humulene (10·2%), linalool (6·0%), copaene (2·2%) and 1-octen-3-ol (0·7%).

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TERPENOIDS OF SOME *MENTHA* HYBRIDS FROM CANADA

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Key Word Index—*Mentha*; Labiatae; essential oils; mono- and sesqui-terpenes.

As part of a chemical and cytological investigation of the genus *Mentha*, a number of hybrid species of Canadian origin have been examined chromatographically. The essential oils was obtained from each species by water distillation and analysed by a combination of previously described techniques.[1-3] Voucher specimens of each plant studied can be found in the herbarium at the University of Waterloo.

Plant. Mentha × *alopecuroides* Hull. *Source.* Long Beach, V.I., British Columbia. *Uses.* Not known. *Previous work.* None.

Terpenoid composition. Carvone (46·0%), limonene (22·8%), 1,8-cineol (4·7%), *cis*-dihydrocarvone (4·1%), dihydrocarvyl acetate (2·9%), β-bourbonene (1·9%), dihydrocarveol

[1] B. M. LAWRENCE, J. W. HOGG and S. J. TERHUNE, *J. Chromatog.* **50**, 59 (1970).
[2] B. M. LAWRENCE, S. J. TERHUNE and J. W. HOGG, *Flavour Ind.* **2**, 173 (1971).
[3] B. M. LAWRENCE, S. J. TERHUNE and J. W. HOGG, *Phytochem.* **10**, 2827 (1971).

(1·7%), caryophyllene (1·6%), β-pinene (1·5%), α-pinene (1·2%), *trans*-carveol (1·2%), sabinene (1·0%) and myrcene (1·0%).

Plant. Mentha × *gentilis* L. *Source.* Lake Mississqui, Quebec. *Uses.* Leaves are used as a condiment. *Previous work.* The presence of menthol.[4] and linalool[5] has been reported.

Terpenoid composition. Carvone (49·3%), limonene (23·4%), caryophyllene (5·4%), *cis*-carveol (2·6%), *cis*-carvyl acetate (1·6%), α-pinene (0·7%), β-pinene (0·6%), myrcene (0·5%), camphene (0·5%), sabinene (0·2%) and *trans*-carveol (0·2%).

Plant. Mentha × *gracilis* Sole. *Source.* Cape Breton Island, Nova Scotia. *Uses.* Not known. *Previous work.* None.

Terpenoid composition. Piperitenone oxide (31·2%), pulegone (28·0%), piperitone oxide (13·1%), methone (10·6%), limonene (3·7%), germacrene D (1·7%), isomenthone (1·5%), *trans*-isopulegone (1·3%), 1,2-epoxymenthyl acetate (1·2%), myrcene (0·8%) and 3-octanol (0·8%).

Plant. Mentha × *muelleriana* F.W. Schultz. *Source.* Belle River, Ontario. *Uses.* Not known. *Previous work.* None.

Terpenoid composition. Carvone (52·3%), limonene (13·3%), myrcene (5·2%), β-pinene (5·0%), 1,8-cineol (3·5%), caryophyllene (3·3%), γ-terpinene (1·7%), *p*-cymene (1·6%), sabinene (1·2%), 3-octanol (0·9%) and α-terpineol (0·9%).

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[4] S. SHIMIZU, N. IKEDA, H. UEDA and K. HOSHIMO, *Koryo* (67), 17 (1962).
[5] J. KATSUHARA, *Koryo* (83), 51 (1966).

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3-DODECANONE IN *MENTHA* × *GENTILIS*

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Key Word Index—*Mentha* × *gentilis*; Labiatae; 3-dodecanone; mono- and sesquiterpenes.

As part of a chemical and cytological investigation of the genus *Mentha*, a strain of *Mentha* × *gentilis*, a hybrid complex involving *M. arvensis* and *M. spicata*,[1] was obtained from Corbridge, Northumberland, U.K. (Morton 5184). Most such hybrids have a characteristic spearmint-like aroma, but this strain had a somewhat floral aroma. Although not much work had been published on the chemical composition of the oil of *M.* × *gentilis*,

[1] J. K. MORTON, *Watsonia* 3, 244 (1956).