Xanthones from Halenia Corniculata. Synthesis and Biological Activity of Some Derivatives

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The aerial part of *Halenia corniculata* (L) Cornaz has been widely used in the East Asia countries to treat rheumatism, stomach and bilious diseases. Isolation efforts have shown that plants of *Halenia sp.* can be considered as a rich source of xanthones [1-3]. We found, that xanthones 1 and 2 could be readily isolated from the aerial part of *Halenia corniculata* (L) Cornaz growing in Buryatia, in the yields up to 0.24 and 0.16% respectively. In the aim to develop of new biological active compounds some C-1 substituted derivatives 3 - 10 were obtained by the following scheme.

The results of investigation of biological activities shown that compound 5 possess the most pronounced choleretic affect.

References:

- 1. G.H. Stout, J.L. Fries, *Phytochemistry*, **9**(1) 235 (1970).
- 2. L.M. Tankhaeva, G.G. Nikolaeva, V.I. Glyzin, I.N. Pinchuk, Nat. Prod. Chem., 6 (1984) 788.
- 3. Sun Hong-fa, Hu Be-ling, Fan Shu-fen, Ding Jing-ye, Acta Bot. Sin., 5, 460 (1983).

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