Ts. Zhapova, L. D. Modonova, and A. A. Semenov

UDC 547.944/945

The chemical composition of the *Aconitum czekanovskyi* Steinb., family Rancunculaceae growing in Eastern Siberia has not previously been studied. Since the *Aconitum* genus belongs to the alkaloid-bearing group, we have investigated the epigeal part of this plant for its alkaloid content. The plant was gathered in the Irkutsk province along the valleys of the rivers Ilga and Boenkhal in different phases of vegetation. The stems, leaves, and flowers were dried and worked up separately. For the quantitative determination of the total alkaloids we used chloroform extraction. The results are given below (% on the weight of the air-dry plant.)

Vegetation phase	Plant organ	Alkaloid content,
Budding—early flowering period (beginning of July) Flowering (end of July— beginning of August	Stems Leaves and buds Epigeal part Stems Leaves Flowers Epigeal part	0,35 0,50 0,44 0,16 0,23 0,74

In order to extract individual alkaloids from the combined material we used the methods of separation according to basicity and according to solubility in various solvents followed by chromatogrpahy on alumina. The eluents used were hexane, acetone, and chloroform. Together with M. N. Sultankhodzhaev of the Institute of the Chemistry of Plant Substances of the Academy of Sciences of the Uzbek SSR, on working with the most basic fractions of the separation of the combined alkaloids from the stems according to basicity, we have isolated two alkaloids. From their chemical properties (melting points and mass, IR, and NMR spectra) and a comparison with authentic samples, they have been identified as the known napelline and songorine [1]. This is the first time that these alkaloids have been isolated from Aconitum ezekanovskyi.

## LITERATURE CITED

S. Yu. Yunusov, Alkaloids [in Russian], Tashkent (1981), pp. 90, 97.

Irkutsk Institute of Organic Chemisty, Siberian Branch, Academy of Sciences of the USSR. Translated from Khimiya Prirodnykh Soedinenii, No. 3, p. 382, May-June, 1986. Original article submitted November 15, 1985.