

ALKALOIDS OF *SERRATA* (HUPERZIACEAE) AND THEIR BIOLOGICAL ACTIVITY

© L. M. Belenovskaya, A. L. Budantsev*

Komarov Botanical Institute of the Russian Academy of Sciences, St. Petersburg, Russia

*E-mail: abudantsev@mail.ru

SUMMARY

This review presents information on 142 alkaloids (with structures) released from *Huperzia serrata* (Thunb.) Trev. They are considered as parts of 4 groups: lycopodine, lycodine, fawcettimine and group of mixed structural types. The structural features of some alkaloid types are discussed in relation to these groups. Along with huperzine A, huperserine E, desoxyhupreserine O, huperzines E and F also have the neuroprotective effects. The pharmacological studies of the last decade demonstrated that huperzine A known as inhibitor of acetylcholinesterase activity has anti-inflammatory, antitoxic, analgesic and other properties. The information on alternative sources of huprezine A form endophytic fungi from *H. serrata* is provided.

Key words: *Huperzia serrata*, alkaloids, biological activity.

ACKNOWLEDGEMENTS

The present study was carried out within the framework of the institutional research project (no. 01201255610) of the Komarov Botanical Institute of the Russian Academy of Sciences.