

INVESTIGATION OF THE ALKALOIDS
OF *Biebersteinia multifida* AND *Peganum*
harmala FROM KARAKALPAKIA

D. Kurbanov and B. Kh. Zharekeev

UDC 547.944/945

The plant *Biebersteinia multifida* has not been investigated before for alkaloid content. We collected it on May 10, 1972, in the budding period (Kabanbai, Ustyurt Plateau). The epigeal part contained 0.08% and the roots 0.1% of a mixture of bases. When this mixture was separated on a column of alumina we isolated vasicinone which was identified by comparison with an authentic sample by means of TLC and UV, IR, mass, and NMR spectra and by a mixed melting point.

Peganum harmala was collected in May-September, 1972, in the phases of budding, flowering, fruit-bearing, and the withering of the epigeal part (environs of the town of Nukus). The amounts of total alkaloids were 3.1, 1.74, 0.86, and 0.36%, respectively. In all periods, a high proportion of peganine in the total bases was found. The mixture of bases from the plant collected in the flowering phase and at the beginning of fruit-bearing has been studied in detail. In this study we isolated 53% of peganine, 7% of deoxypeganine, 0.81% of vasicinone, and a small amount of deoxyvasicinone and harmine. The alkaloids were identified by means of a direct comparison with authentic samples.

Combined Institute of Natural Sciences, Karakalpak Branch, Academy of Sciences of the Uzbek SSR. Translated from *Khimiya Prirodnykh Soedinenii*, No. 5, pp. 685-686, September-October, 1974. Original article submitted May 15, 1974.

©1976 Plenum Publishing Corporation, 227 West 17th Street, New York, N.Y. 10011. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, microfilming, recording or otherwise, without written permission of the publisher. A copy of this article is available from the publisher for \$15.00.