

SHORT COMMUNICATION

THE ANTHOCYANIN PIGMENT IN *CALYSTEGIA SILVATICA*

M. P. IMBERT

Department of Biological Sciences, University of the West Indies, St. Augustine, Trinidad, W.I.

(Received 27 November 1968, in revised form 17 December 1968)

Abstract—The anthocyanin pigment present in the flowers and vegetative parts of *Calystegia silvatica* has been identified as cyanidin-3-rutinoside.

THE DISCOVERY of acylated anthocyanins in *Ipomoea batatas* (Convolvulaceae)¹ prompted the investigation of some temperate members of the same family. The temperate members of this family growing in Ireland belong to the three genera *Calystegia*, *Convolvulus* and *Cuscuta*.² A preliminary survey of the flowers and vegetative parts of the genera *Calystegia* and *Convolvulus* indicated that only one anthocyanin was present in all the plants examined. For further study, this pigment was extracted from fresh stem material of *Calystegia silvatica*, separated by ether and lead acetate precipitation and purified by chromatography. It was stable to 2 N NaOH, indicating that it was non-acylated.³ Acid hydrolysis gave cyanidin, glucose and rhamnose. Partial acid hydrolysis gave one intermediate glycoside, cyanidin-3-monoglucoside and a disaccharide, identified as rutinose by co-chromatography. The identity of the anthocyanin was then confirmed by spectral and chromatographic comparison with an authentic sample of cyanidin-3-rutinoside. As far as it is known, this is the first report of anthocyanin analysis in the genus *Calystegia*.

Acknowledgements—Grateful acknowledgement is due to Professor W. Cocker for providing facilities at Trinity College, Dublin, to carry out this work. The author is also indebted to Dr. M. Carson of Trinity College, Dublin, for her help in identifying plant material, to Dr. J. B. Harborne for a sample of cyanidin-3-rutinoside and to Dr. V. Quesnel of U.W.I., St. Augustine, Trinidad, for helpful discussion and advice.

¹ M. P. IMBERT, C. SEAFORTH and B. WILLIAMS, *Proc. Am. Soc. Hort. Sci.* **88**, 481 (1966).

² D. A. WEBB, *An Irish Flora*, Dundalgan Press, Dublin (1953).

³ J. B. HARBORNE, *J. Chromatogr.* **1**, 473 (1958).