Phytochemistry, 1972, Vol. 11, p. 1534. Pergamon Press. Printed in England.

MONOCOTYLEDONAE

LILIACEAE

FLAVONOIDS OF SQUILL, URGINEA MARITIMA

M. FERNANDEZ, F. A. VEGA, T. ARRUPE and J. RENEDO

Departamento de Fitoquímica, Universidad de Navarra, Pamplona, Spain

(Received 4 July 1971, in revised form 12 September 1971)

Plant. Bulbs of Urginea maritima Bak. collected in Iberian peninsula and Balearic Islands. Previous work. Cyanidin-3-monoglucoside free and acylated with caffeic acid.¹ Compounds identified. From extraction of fresh bulbs with ethanol 85% final concentration, fractionation by filtration through polyamide,² and preparative PC the following compounds were isolated and identified by comparison with reference compounds using the usual chromatographic and spectrophotometric methods:³

Major compounds; dihydroquercetin-4'-monoglucoside and quercetin-3-monoglucoside. Minor compounds; quercetin, dihydroquercetin and kaempferol-3-triglucoside. Other compounds detected; several acylated polyglycosides and various simple and complex glycoflavones based on luteolin and apigenin; difficulties in isolation are due to the presence of cardiotonic glycosides which show a similar behaviour in the chromatographic systems.

Acknowledgements—We are indebted to Dr. Wender and Dr. J. B. Harborne for reference samples, to "Ministerio de Educación y Ciencia" for financial support, and "Comisaria de Protección Escolar" for Grants to M.F. and J.R.

- ¹ F. A. VEGA and C. MARTIN, Nature, Lond. 197, 382 (1963).
- ² F. A. VEGA, M. FERNANDEZ, P. G. CASADO and M. ESTERUELAS, Experientia 25, 447 (1969).
- ³ J. B. HARBORNE, Comparative Biochemistry of Flavonoids, Academic Press, London (1967).

Key Word Index—Urginea maritima; Liliaceae; kaempferol 3-triglucoside; dihydroquercetin 4'-glucoside; quercetin derivatives.

Phytochemistry, 1972, Vol. 11, pp. 1534 to 1535. Pergamon Press. Printed in England.

ZINGIBERACEAE

TERPENOIDS OF TWO AMOMUM SPECIES FROM THAILAND

BRIAN M. LAWRENCE, JAMES W. HOGG and STUART J. TERHUNE

Strange Canada Limited, 3340 Orlando Drive, Malton P.O., Mississauga, Ontario, Canada

and

NITASNA PICHITAKUL

Applied Scientific Research Corporation of Thailand, Bangken, Bangkok, Thailand (Received 30 September 1971)

Plant. Amomum cardamomum L. Source. Thailand (known locally as Krawan). Uses.