### TRANSACTIONS

OF THE

## ROYAL SOCIETY OF EDINBURGH

https://doi.org/10.1017/S0080456800100456 Published online by Cambridge University Press

### TRANSACTIONS

OF THE

# ROYAL SOCIETY

OF

## EDINBURGH

VOL. LXIV

PUBLISHED BY THE

ROYAL SOCIETY OF EDINBURGH 22 GEORGE STREET EDINBURGH 2

1962

No.	I.	Published	April 25, 1960.	No.	XI.	Published	November 4, 1960.
"	II.	>>	May 16, 1960.	,,	XII.		December 9, 1960.
,,	III/IV.	• •	August 22, 1960.	,,	XIII.	,,	February 3, 1961.
,,	V/VI.	,,	August 24, 1960.	,,	XIV.	,,	June 30, 1961.
"	VII.	"	August 31, 1960.	,,	XV.	• •	December 8, 1961.
,,	VIII.	"	September 14, 1960.	,,	XVI.	,,	December 23, 1961.
,,	IX.	,,	September 7, 1960.	,,	XVII.	,,	July 16, 1962.
,,	Х.	"	October 28, 1960.	,,	XVIII.	,,	July 16, 1962.

PRINTED IN GREAT BRITAIN BY NEILL AND CO. LTD., EDINBURGH

## CONTENTS

PAGE	ER	NUMBE
1	. Glaucophane-schist, Eclogite, and Associated Rocks from Knockormal in the Girvan-Ballantrae Complex, South Ayrshire. By T. W. BLOXAM, B.Sc., Ph.D., F.G.S., Department of Geology, University College, Swansea, and J. B. ALLEN, B.Sc., Ph.D., F.G.S., Mineral Resources Division, Overseas Geological Surveys, London. Communicated by Professor Emeritus ARTHUR HOLMES, F.R.S. (With Two Plates, Three Text-figures and Ten Tables).	I.
29	I. On the Structure of Calymmatotheca kidstoni Calder (emended) and Genomosperma latens gen. et sp. nov. from the Calciferous Sandstone Series of Berwickshire. By ALBERT G. LONG, M.Sc., F.R.E.S., Berwickshire High School, Duns. Communicated by Professor JOHN WALTON, D.Sc. (With Four Plates and Two Text-figures)	*11
45	I. Aspects of the Intertidal Ecology of Rocky Shores in Argyll, Scotland. I. General Description of the Area. By JOHN R. LEWIS, Ph.D., Department of Zoology, Leeds University, and H. T. POWELL, M.Sc., The Marine Station, Millport. Communicated by Professor C. M. YONGE, C.B.E., F.R.S. (With Two Plates and Six Text-figures)	111
75	<ul> <li>Aspects of the Intertidal Ecology of Rocky Shores in Argyll, Scotland. II. The Distribution of Chthamalus stellatus and Balanus balanoides in Kintyre. By JOHN R. LEWIS, Ph.D., Department of Zoology, Leeds University, and H. T. POWELL, M.Sc., The Marine Station, Millport. Communicated by Professor C. M. YONGE, C.B.E., F.R.S. (With Two Plates and Three Text-figures)</li></ul>	IV
101	<ul> <li>N. The Geochemistry of the Older Granodiorite, Co. Donegal, Ireland. By EDWARD L. P. MERCY, Ph.D., D.I.C., F.G.S., Grant Institute of Geology, University of Edinburgh. Communicated by Professor F. H. STEWART. (With Seven Text-figures and One Map)</li></ul>	*7
128	<ul> <li>The Geochemistry of the Rosses Granitic Ring Complex, Co. Donegal, Ireland. By EDWARD L. P. MERCY, Ph.D., D.I.C., F.G.S., Grant Institute of Geology, University of Edinburgh. Communicated by Professor F. H. STEWART. (With Five Text-figures and One Map)</li></ul>	*V?

#### CONTENTS

NUMBER *VII.	The Structural History of the Moine Thrust Zone at Lochcarron, Wester Ross. By M. R. W. JOHNSON, Ph.D., D.I.C., B.Sc. Communicated by Professor	PAGR
	F. H. STEWART. (With Fourteen Text-figures and One Map)	139
VIII.	The Petrology of the Layered Basic Rocks of the Carlingford Complex, Co. Louth. By M. J. LE BAS, B.Sc., Ph.D., F.G.S., Department of Mineralogy and Petrology, University of Cambridge. Communicated by Dr J. E. RICHEY, M.C., F.R.S. (With Three Plates, Eight Text-figures, Two Maps and Four Tables)	169
*IX.	<ul> <li>Stamnostoma huttonense gen. et sp. nov.—a Pteridosperm seed and cupule from the Calciferous Sandstone Series of Berwickshire. By ALBERT G. LONG, M.Sc., F.R.E.S., Berwickshire High School, Duns. Communicated by Professor J. WALTON, D.Sc. (With Five Text-figures and Two Plates) .</li> </ul>	201
X.	The Feeding Mechanism of Some Atyid Prawns of the Genus Caridina. By GEOFFREY FRYER, East African Fisheries Research Organization. Com- municated by Professor H. GRAHAM CANNON, F.R.S. (With Thirty-four Text-figures)	217
XI.	The Silurian Inlier of Carmichael, Lanarkshire. By W. D. IAN ROLFE. Communicated by Dr Archie LAMONT. (With One Plate and Four Text- figures)	245
*XII.	On the Structure of Samaropsis scotica Calder (emended) and Eurystoma angulare gen. et sp. nov., Petrified Seeds from the Calciferous Sandstone Series of Berwickshire. By ALBERT G. LONG, M.Sc., F.R.E.S., Berwickshire High School, Duns. Communicated by Professor JOHN WALTON, D.Sc. (With Four Plates and Six Text-figures)	261
*XIII.	On the Structure of Deltasperma fouldenense gen. et sp. nov., and Camptosperma berniciense gen. et sp. nov., Petrified Seeds from the Calciferous Sandstone Series of Berwickshire. By Albert G. Long, M.Sc., F.R.E.S., Berwickshire High School, Duns. Communicated by Professor JOHN WALTON, D.Sc. (With Four Plates and Five Text-figures)	281
XIV.	The Muscular and Reproductive Systems of Atomaria ruficornis (Marsham) (Coleoptera, Cryptophagidæ.) By M. E. G. Evans, Department of Zoology, University of Manchester. Communicated by Professor H. GRAHAM CANNON, F.R.S. (With Sixty-four Text-figures)	297

vi

#### CONTENTS

vii

Communicated by Professor JOHN WALTON. D.Sc. (With Four Plates and Four Text-figures)       40         *XVI. The Tertiary Pollen-Flora of Mull and Ardnamurchan. By J. B. SIMPSON, D.Sc., F.R.S.E., F.G.S. (With Twenty Plates and One Table)       42	.01
· · ·	91
	41
*XVII. Contributions to the Knowledge of Zosterophyllum myretonianum Penhallow from the Lower Old Red Sandstone of Angus. By K. M. LELE, Birbal Sahni Institute, Lucknow, and JOHN WALTON, University of Glasgow. (With Two Plates)	69
<ul> <li>*XVIII. Tristichia ovensi gen. et sp. nov., a Protostelic Lower Carboniferous Pteridosperm from Berwickshire and East Lothian, with an Account of some Associated Seeds and Cupules. By ALBERT G. LONG, M.Sc., F.R.E.S., Berwickshire High School, Duns. Communicated by Professor JOHN WALTON, D.Sc. (With Four Plates and Two Text-figures)</li></ul>	-77

\* The cordial thanks of the Society are due to the Carnegie Trust for the Universities of Scotland for grants towards the cost of the illustrations and tables in these papers.

### TRANSACTIONS

OF THE

## ROYAL SOCIETY OF EDINBURGH

#### VOLUME LXIV, 1958-61

- 9. Stamnostoma huttonense gen. et sp. nov.—a Pteridosperm seed and cupule from the Calciferous Sandstone Series of Berwickshire. By Albert G. Long, M.Sc., F.R.E.S., Berwickshire High School, Duns. Communicated by Professor J. WALTON, D.Sc. (With Two Plates and Five Text-figures.) Price: 8s. 6d. (Issued September 7, 1960.)
- The Feeding Mechanism of Some Atyid Prawns of the Genus Caridina. By GEOFFREY FRYER, East African Fisheries Research Organization. Communicated by Professor H. GRAHAM CANNON, F.R.S. (With Thirty-four Text-figures.) Price: 10s. 6d. (Issued October 28, 1960.)
- 11. The Silurian Inlier of Carmichael, Lanarkshire. By W. D. IAN ROLFE. Communicated by Dr ARCHIE LAMONT. (With One Plate and Four Text-figures.) Price: 8s. 6d. (Issued November 4, 1960.)
- On the Structure of Samaropsis scotica Calder (emended) and Eurystoma angulare gen. et sp. nov., Petrified Seeds from the Calciferous Sandstone Series of Berwickshire. By ALBERT G. LONG, M.Sc., F.R.E.S., Berwickshire High School, Duns. Communicated by Professor JOHN WALTON, D.Sc. (With Four Plates and Six Text-figures.) Price: 10s. 6d. (Issued December 9, 1960.)
- On the Structure of Deltasperma fouldenense gen. et sp. nov., and Camptosperma berniciense gen. et sp. nov., petrified seeds from the Calciferous Sandstone Series of Berwickshire. By ALBERT G. LONG, M.Sc., F.R.E.S., Berwickshire High School, Duns. Communicated by Professor JOHN WALTON, D.Sc. (With Four Plates and Five Text-figures.) Price: 8s. 6d. (Issued February 3, 1961.)
- The Muscular and Reproductive Systems of Atomaria ruficornis (Marsham) (Coleoptera, Cryptophagidæ). By M. E. G. EVANS, Department of Zoology, University of Manchester. Communicated by Professor H. GRAHAM CANNON, F.R.S. (With Sixty-four Text-figures.) Price: 37s. 6d.

(Issued June 30, 1961.)

- Some Pteridosperm Seeds from the Calciferous Sandstone Series of Berwickshire. By Albert G. Long, M.Sc., F.R.E.S., Berwickshire High School, Duns. Communicated by Professor John Walton, D.Sc. (With Four Plates and Four Text-figures.) Price: 10s. 6d. (Issued December 8, 1961.)
- 16. The Tertiary Pollen-Flora of Mull and Ardnamurchan. By J. B. SIMPSON, D.Sc., F.R.S.E., F.G.S. (With Twenty Plates and One Table.) Price: 30s. (Issued December 22, 1961.)
- Contributions to the Knowledge of Zosterophyllum myretonianum Penhallow from the Lower Old Red Sandstone of Angus. By K. M. LELE, Birbal Sahni Institute, Lucknow, and J. WALTON, University of Glasgow. (With Two Plates.) Price: 6s. (Issued July 16, 1962.)
- Tristichia ovensi gen. et sp. nov., a Protostelic Lower Carboniferous Pteridosperm from Berwickshire and East Lothian, with an Account of some Associated Seeds and Cupules. By ALBERT G. LONG, M.Sc., F.R.E.S., Berwickshire High School, Duns. Communicated by Professor JOHN WALTON D.Sc. (With Four Plates and Two Text-figures.) Price: 8s. 6d. (Issued July 16, 1962.)

Title page, Contents and Index.

Fellows of the Society purchasing publications for their own use will be allowed a special discount of 33<sup>1</sup>/<sub>3</sub> per cent on the stated prices (see Law XVI).

PRINTED IN GREAT BRITAIN BY NEILL AND CO., LTD., EDINBURGH.