

Part III of III

JOURNAL OF PALEONTOLOGY

THE PALEONTOLOGICAL SOCIETY
MEMOIR 42

Selected Ordovician Trilobites from the Lake St. John
District of Quebec and Their Bearing on Systematics

PIERRE J. LESPÉRANCE AND SYLVAIN DESBIENS



Memoirs of The Paleontological Society are occasional publications consisting of monographs and symposia that are too extensive for publication in the *Journal of Paleontology* as part of the regular issues. Ordinarily, memoirs are published as supplements to a regular issue of the *Journal*. Inquiries concerning submittal of manuscripts for inclusion in the Memoir Series may be made to the Managing Editor of the *Journal of Paleontology*.

For information on cost and availability of back numbers of the Memoir Series, please contact: SEPM Business Office, P.O. Box 4756, Tulsa, OK 74159, for numbers 1 (1968) through 16 (1985) or Journal of Paleontology, P.O. Box 1897, Lawrence, KS 66044-8897, for number 17 (1986) and following.

OFFICERS OF THE SOCIETY

For the year ending November, 1995

President

CRAIG G. BLACK, Los Angeles, CA

President-Elect

J. JOHN SEPKOSKI, JR., Chicago, IL

Past-President

STEVEN M. STANLEY, Baltimore, MD

Secretary

THOMAS W. (WOODY) HENRY
Box 28200-16
Lakewood, CO 80228-3108

Treasurer

JOHNNY A. WATERS
Dept. of Geology
West Georgia College
Carrollton, GA 30118

Program Coordinators

MICHAEL R. SANDY, Dayton, OH
MARY L. DROSER, Riverside, CA

Managing Editor

DANIEL B. BLAKE, Urbana, IL

Associate Editors

DOUGLAS J. BREWER, Urbana, IL
RALPH L. LANGENHEIM, JR., Urbana, IL

Technical Editors

JACK B. BAILEY, Macomb, IL
DAVID K. ELLIOTT, Flagstaff, AZ
FRANK R. ETENSOHN, Lexington, KY
PATRICIA H. KELLEY, Grand Forks, ND
ELLEN COMPTON-GOODING, Martinsville, VA
THOMAS E. GUENSBURG, Rockford, IL
DEBORAH E. NEWMAN, Provo, UT
JACK PASHIN, Tuscaloosa, AL
DONALD R. PROTHERO, Los Angeles, CA
ANNE L. RAYMOND, College Station, TX
MICHAEL R. SANDY, Dayton, OH

Paleobiology Co-Editors

DAVID L. MEYER and ARNOLD I. MILLER
Cincinnati, OH

Special Publications Co-Editors

WILLIAM I. AUSICH and LOREN E. BABCOCK
Columbus, OH

Councilors

DANA H. GEARY, Madison, WI
PETER D. WARD, Seattle, WA

Section Chairpersons

North-Central: PATRICIA H. KELLEY
Grand Forks, ND
Northeastern: CONSTANCE M. SOJA
Hamilton, NY
Pacific Coast: CHARLES MARSHALL
Los Angeles, CA
Rocky Mountain: ROBERT C. THOMAS
Dillon, MT
Southeastern: MICHAEL A. GIBSON
Martin, TN
South-Central: ARTHUR B. BUSBEY III
Fort Worth, TX

The Paleontological Society

MEMOIR 42

**SELECTED ORDOVICIAN TRILOBITES FROM THE LAKE ST. JOHN
DISTRICT OF QUEBEC AND THEIR BEARING ON SYSTEMATICS**

PIERRE J. LESPÉRANCE AND SYLVAIN DESBIENS

Département de géologie, Université de Montréal, P.O. Box 6128, Montréal, Canada, H3C 3J7
and Geological Survey of Canada, 601 Booth Street, Ottawa, Canada, K1A 0E8

Copyright © 1995 by
THE PALEONTOLOGICAL SOCIETY, INC.
JULY 1995

CONTENTS

ABSTRACT	1
INTRODUCTION	1
RECENT CLASSIFICATIONS OF SOME ORDOVICIAN ENCRINURINAE	1
THE GENUS <i>ERRATENCINURUS</i> KRUEGER, 1971	1
THE GENUS <i>PHYSEMATASPIS</i> EVITT AND TRIPP, 1977	2
PHYLOGENETIC ANALYSIS OF <i>ENCRINUROIDES</i> SPECIES	2
CHARACTERS CONSIDERED AND RETAINED	2
CHARACTER POLARITY	3
RESULTS OF ANALYSES	3
BIOGEOGRAPHIC AND AGE CONSIDERATIONS	5
CONCLUDING REMARKS	5
THE CHEIRURINE GENUS <i>CERAURUS</i> AND ITS ALLIES	5
Species of uncertain affinities	7
SYSTEMATIC PALEONTOLOGY	7
FAMILY Remopleurididae Hawle and Corda, 1847	7
SUBFAMILY Remopleuridinae Hawle and Corda, 1847	7
GENUS <i>Hypodicranotus</i> Whittington, 1950	7
<i>Hypodicranotus striatulus</i> (Walcott, 1875)	7
FAMILY Encrinuridae Angelin, 1854	9
SUBFAMILY Encrinurinae Angelin, 1854	9
GENUS <i>Encrinuroides</i> Reed, 1931	9
GENUS <i>Walencrinuroides</i> n. gen.	9
<i>Walencrinuroides</i> s.l. <i>gelaisi</i> n. gen. n. sp.	9
GENUS <i>Frencrinuroides</i> n. gen.	11
GENUS <i>Physemataspis</i> Evitt and Tripp, 1977	11
SUBGENUS <i>Physemataspis</i> (<i>Physemataspis</i>)	11
SUBGENUS <i>Physemataspis</i> (<i>Prophysemataspis</i>)	
n. subgen.	11

GENUS <i>Erratencrinurus</i> Krueger, 1971	11
<i>Erratencrinurus</i> s.l. <i>spicatus</i> (Tripp, 1974)	12
FAMILY Cheiruridae Hawle and Corda, 1847	12
SUBFAMILY Cheirurinae Hawle and Corda, 1847	12
GENUS <i>Ceraurus</i> Green, 1832	12
<i>Ceraurus globulobatus</i> Bradley, 1930	13
<i>Ceraurus matranseris</i> Sinclair, 1947	13
GENUS <i>Gabriceraurus</i> Přibyl and Vaněk, 1985	15
<i>Gabriceraurus dentatus</i> (Raymond and Barton, 1913) ...	15
ACKNOWLEDGMENTS	16
REFERENCES	17

APPENDIX

List of characters retained for cladistical analysis	18
------------------------------------------------------------	----

ILLUSTRATIONS

FIGURES

1—Unique minimal length cladogram of the 18 encrinurine taxa of Table 2	4
2—Outline drawings of various species of <i>Ceraurus</i> and <i>Gabriceraurus</i>	6
3— <i>Hypodicranotus striatulus</i> , <i>Walencrinuroides</i> s.l. <i>gelaisi</i> n. sp., and <i>Erratencrinurus</i> s.l. <i>spicatus</i>	8
4— <i>Ceraurus matranseris</i> and <i>Ceraurus globulobatus</i>	14
5— <i>Gabriceraurus dentatus</i>	16

TABLES

1—Taxa retained for cladistical analysis	3
2—Data matrix for the taxa retained for cladistical analysis ...	3