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A massive collection of Ordovician echinoderms has been accumulated primarily from northeastern Iowa and southeastern Minnesota but including material from other states; it is in process of being studied. A brief history of the inception of the study and the process of bringing the material together is presented. Individuals are named but only brief details are given. Primarily this is a report of a concentrated effort to produce a significant study of echinoderms from Middle and Upper Ordovician strata, the people involved and the methods of obtaining material.

INDEX DESCRIPTORS: Ordovician Echinoderms; Benbolt and Ottosee Formations, Tennessee and Virginia; Bromide Formation, Oklahoma; Platteville Formation; Galena Group; Maquoketa Formation; Decorah Formation, Iowa, Minnesota and Illinois; Kimmswick, Girardeau, Decorah Formations, Missouri.

Considerable attention has been directed toward Ordovician echinoderms of North America in the past few years by many investigators, e.g., Sprinkle, Brower, Lane, Caster, Parsley, Kolata, Kesling, Paul, Bolton and others. A detailed listing would serve no purpose here and would in fact require a report in itself. It is sufficient to note that there is a veritable explosion of material and data which is remarkable enough without considering the great antiquity of the animals and the difficulty in finding them in the field. Although I am more than a little adept at collecting echinoderms, there has been more than one occasion when I was happy to recover one or two specimens in indifferent preservation after an exhaustive search in Ordovician strata. Fortunately it is not always so.

The inception of the presently activated studies of Ordovician echinoderms might be said to be about 1946 or 1947. Wm. T. Watkins, an advanced fossil collector, became my associate and later collaborator on echinoderms of southern Oklahoma. In addition to exposures previously known to Watkins, G. A. Cooper, A. L. Loeblich and W. M. Ham either showed me or told me about many echinoderm-bearing localities in southern Oklahoma, including Ordovician exposures. One of the most prolific exposures of the Bromide Formation, on the West Fork of Sycamore Creek in the eastern portion of the Arbuckle Mountains, was in an area that could only be reached on foot at that time and eluded me for three years, though I did eventually walk it down. The first report I made was on a new pleurocystitid (*Pleurocystites watkinsi* Strimple, 1948) which was subsequently designated the type species of *Praepleurocystis* Paul, 1967 (see also Strimple, 1972; Sprinkle, 1973). Subsequent short taxonomic reports were made, e.g., Strimple, 1952, 1953a, 1953b; Strimple and Watkins, 1949, 1955; Strimple and Graffham, 1955.

It was my intention in 1962 to attempt a large study of echinoderms of the Bromide Formation of Oklahoma, upon completion of the study of Hunton (Silurian-Devonian) crinoids (*Okla. Geol. Survey Bull.* 100, 1963), but the project was assigned to R. O. Fay by Carl C. Branson, who was then Director of the Oklahoma Geological Survey. Fay spent over a year in the field accumulating large collections from Ordovician exposures in southern Oklahoma with the assistance of Allen A. Graffham and his staff; however, the study was eventually shelved, and then revived and organized by James A. Sprinkle in the spring of 1974 to be handled as a team project with Sprinkle as the coordinator. I am not a member of that team and the endeavor has no direct bearing on the studies under discussion.

Subsequent to completion of the forementioned *Okla. Geol. Surv. Bull.* 100, I joined the Geology Department staff at The University of Iowa and became interested in the potential of the Ordovician of northeastern Iowa, in particular the Maquoketa Formation. Both W. M. Furnish and B. F. Glenister were most helpful in my endeavor. Effective collecting in the Maquoketa is only possible when the rocks are moist, which requires close coordination between existing weather conditions and the timing of field expeditions. Through the years considerable collections have been made over and above those described by Slocum (1924), Foerste (1924) and Thomas and Ladd (1926). The major breakthrough in acquisition of Ordovician material was made when Art Gerk, a salesman for Johns-Manville Co., found echinoderms in the Galena Group exposed in his territory in northeastern Iowa.

Art Gerk, Mason City, Iowa, is basically a naturalist who has enjoyed investigations of both living and fossil life in his years of travel in north-central and northeastern Iowa. The fossils and stratigraphy of the Ordovician of northeastern Iowa have occupied his attention for the past several years. In this project he is teamed with C. O. Levorson, Riceville, Iowa, who has been involved with advanced biostratigraphic studies for a longer span of years.

C. O. Levorson, Postmaster, Riceville, Iowa, for many years devoted much of his free time and efforts to collecting fossils and associated biostratigraphic studies of Devonian rocks of north-central Iowa. We became closely associated when I elicited his assistance in production of the "Catalogue of Type Specimens of the Belanski Collection," Strimple and Levorson, 1969, which collection consisted of Devonian fossils mainly from the area around Nora Springs, Iowa. Several joint studies were done on rare Upper Devonian crinoids (Strimple and Levorson, 1969, 1971, 1974). Levorson has concentrated on the Ordovician for the past several years, and in particular on the Galena Group of northeastern Iowa and southeastern Minnesota in cooperation with Art Gerk. A report on the initial stages of their stratigraphic work is available in *Proc. Iowa Acad. Sci.*, Levorson and Gerk, 1972. Their stratigraphic study is now essentially completed and represents an incredible amount of effort, time and just plain work.

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During the years 1971-1974 they examined in detail 82 localities and made 90 detailed sections in the Galena Group, primarily in northeastern Iowa but extending into Minnesota and Wisconsin on occasion. The echinoderms have been made available and will form the nucleus of the massive studies of Ordovician echinoderms in progress with Strimple, Levorson, et al., as investigators.

Yet another resident of Riceville, Iowa, Glenn Crossman, is an advanced fossil collector who has contributed to the Ordovician echinoderm studies, both in the field and with rare specimens.

Brian Gossman, more or less as a protege of Art Gerk, has worked in the area near Elkader, Iowa, and is now an undergraduate at The University of Iowa. Steve Calhoun, presently a master's candidate at The University of Iowa, is more or less a protege of Glenn Crossman. Both have contributed rare specimens to the Ordovician studies.

Other material which will be used in the present study has been acquired by various means. A collection made in the Benbolt Formation of eastern Tennessee by the author in 1951, and currently reposited in the National Museum of Natural History, has been augmented by a collection made in the fall of 1972. Collections made by Cliff Coney in the Ottosee Formation near Speer's Ferry, Virginia, have been donated to the study through the influence of a University of Iowa alumnus, J. M. Cocke, while a professor at East Tennessee State University. Material from the Girardeau Limestone at Cape Girardeau, Missouri, was donated to the study by Larry Mack while a student at Missouri State College at Cape Girardeau. Mack also guided my wife and me in field work in the area. Crinoids have been recovered by Amel Priest, Mike McGinnis and Glenn Crossman, together with the author, from the Decorah Formation south of Hannibal, Missouri.

Echinoderms from the Kimmswick Formation of Missouri and the Galena Formation at Cannon Falls, Minnesota, have been acquired in a variety of ways. Most of the Kimmswick material is from near the town of Barnhart, south of St. Louis, Missouri. A young amateur, Guy Darrough, guided my wife and me to the area, where we collected, and in addition he exchanged with us a few specimens both from the Kimmswick and from the Galena Formation at Cannon Falls, Minnesota. Darrough is a protege of Bruce Stinchcomb, a teacher at Florissant Valley Community College, St. Louis, Missouri. Both Stinchcomb and Darrough exchange with Allen Graffham (Geological Enterprises), and some of the best specimens were obtained by the author and his wife through outright personal purchase from Geological Enterprises, although Graffham would have made them available through the intricacy of exchange. Some specimens were recovered from Cannon Falls, Minnesota, in November, 1972, after the annual Geological Society meeting in Minneapolis, by a field party consisting of W. M. Furnish, Stan Zawistowski, my wife and me. A rare carpoid, *Scalenocystites strimplei* Kolata, 1973, was subsequently described by Kolata, while a Ph.D. candidate at the University of Illinois, from the Cannon Falls locality.

Dennis Kolata started as an amateur collector while a boy in Rockford, Illinois, and his interest in echinoderms of the Ordovician climaxed with a magnificent study of specimens from Illinois as part of a Ph.D. dissertation. The study is presently in press as a memoir of the *Journal of Paleontology*; Kolata is now a staff member of the Illinois Geological Survey and will be a contributor and principal investigator in many of the current studies.

Robert Wood, a master's candidate at The University of Iowa, recently contributed some excellent pleurocystitids (*Amecystis*) from the Decorah Formation, St. Paul, Minnesota, which will constitute a separate study by Broadhead and Strimple. Tom Broadhead, a doctoral candidate at The University of Iowa, will be principal investigator of the pleurocystitids from Iowa and Minnesota in the current studies.

The studies will thus be a compendium utilizing material housed through the years in museums, and material collected by amateur collectors, advanced collectors, semi-professional collectors, professional collectors, students, professors, private expeditions and University expeditions, as well as material acquired from a reputable fossil company.

Due to the recent tremendous increases in prices of publishing supplies and charges, it will not be possible to produce these studies under one cover, and so it has been elected to make natural groupings and publish whenever and wherever possible. At this stage there has been absolutely no financial support for any part of the project other than that afforded by the normal employment of the parties involved.

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