

CURRICULUM VITAE

Gilbert Klapper
Dept. of Earth and Planetary Sciences
Northwestern University
2145 Sheridan Road
Evanston, IL 60208

Born: September 29, 1934, Wichita, Kansas, U.S.A.

Academic Training

B.S. (Geology): Stanford University, June, 1956
M.S. (Geology): Kansas University, January, 1958
Ph.D. (Geology): University of Iowa, August, 1962

Professional Experience

Field Assistant to Warren Hamilton, U.S. Geological Survey, Summer, 1956
Micropaleontologist, Shell Oil Company (in Baton Rouge, Louisiana),
February, 1958 - August 1959
Teaching Assistantship, University of Iowa (1959-1960)
Research Assistantship, University of Iowa (1960-1962)
NSF Summer fellowships (1960, 1961)
National Science foundation Postdoctoral Fellowship, September, 1962 -
September, 1963 (10 months at the Illinois State Geological Survey
studying with Charles Collinson, 2 months at North Rhine - Westphalian
Geological Survey, Krefeld, Germany, studying with Willi Ziegler).
Paleontologist, Research Center, Pan American Petroleum Corp. (later called
AMOCO Production Company), Tulsa, Oklahoma, September, 1963 -
August, 1968; summer, 1970.
Associate Professor, Department of Geology, University of Iowa,
September, 1968 - June, 1973.
Professor, Department of Geology, University of Iowa, July, 1973 - May, 1998.
[Chairman of Geology, July 1983-July 1986].
Emeritus Professor, University of Iowa, June, 1998 - present.
Visiting Professor, Oregon State University, Fall, 1978.
Visiting Professor, University of Chicago, Spring, 1989.
Visiting Professor and Visiting Scholar, Northwestern University, Spring, 2007 –
2014
Adjunct Professor, Northwestern University, 2015 – present.
Consultant, Amoco Production Co. (Tulsa & Houston) and Amoco Canada
Ltd., Calgary, 1981-1997 [these activities have involved numerous formal
consulting reports, which are not treated herein as publications].

Professional Affiliations

Paleontological Society (elected as a Fellow, 2011), Society for Sedimentary Geology (SEPM), Paleontological Research Institution, Pander Society, Palaeontological Association.

Honors

Medal of Canadian Society of Petroleum Geology for best paper on the subject of petroleum geology in all Canadian publications for 1998 (McLean & Klapper, 1998, publication no. 90 in list below).

Awarded the Pander Society Medal (April, 1995). The Pander Society is an international association of specialists on conodonts, numbering about 400 researchers, organized in 1967. This was the ninth time the medal had been awarded.

James Hudnall Distinguished Lecturer, University of Chicago, Spring, 1989
Senior U.S. Scientist Award of Alexander von Humboldt Foundation, West Germany (tenure held during summers of 1982 and 1984 at Senckenberg Museum, Frankfurt and pursuing field work in the Montagne Noire, Carnic Alps, Rhenish Slate and Holy Cross Mountains)

Vice-Chairman of International Subcommission on Devonian Stratigraphy (1976-1984), titular member of Subcommission (1973-2003).

An invited keynote speaker at the Palaeontological Association International Symposium on the Devonian System, Bristol, England, 1978.

Senior Scholar, Fulbright - Hays Program (1974 Award, declined).

Honorable Mention, Best Paper Award, 1969 Journal of Paleontology (Lower Devonian conodont sequence, Royal Creek, etc.- ref. no. 13).

Non-geological/paleontological activities:

Chicago Literary Club, member since 2003, secretary 2011-12 season (October-May), president 2012-13 (October-May).

REFEREED PUBLICATIONS_ (* = invited papers)

1. Klapper, G., 1958, An Upper Devonian conodont fauna from the Darby Formation of the Wind River Mountains, Wyoming: Jour. Paleontology, v. 32, p. 1082-1093, 2 pls.
2. Klapper, G., & Furnish, W. M., 1962, Devonian-Mississippian Englewood Formation in Black Hills, South Dakota: Am. Assoc. Petroleum Geologists, Bull., v. 46, p. 2071-2078.
3. Klapper, G., & Furnish, W. M., 1963, Conodont zonation of the early Upper Devonian in eastern Iowa: Iowa Acad. Sci., Proc. 1962, v. 69, p. 400-410.

4. Ziegler, W., Klapper, G., & Lindström, M., 1964, The validity of the name *Polygnathus* (Conodonta, Devonian and Lower Carboniferous): Jour. Paleontology, v. 38, p. 421-423.
5. Beckmann, H., Collinson, C., Helms, J., Huckriede, R., Klapper, G., Krebs, W., Lindström, M., Rhodes, F. H. T., Walliser, O. H., & Ziegler, W., 1965, Sind Conodonten Reste fossiler Algen? (Zur Hypothese von K. Fahlbusch 1964): Neues Jb. Geol. Paläont., Mh., 7, p. 385-399.
6. Klapper, G., 1966, Upper Devonian and Lower Mississippian conodont zones in Montana, Wyoming, and South Dakota: Univ. Kansas Paleont. Contr., Paper 3, 43 p., 6 pls.
7. Glenister, B. F., & Klapper, G., 1966, Upper Devonian conodonts from the Canning Basin, Western Australia: Jour. Paleontology, v. 40, p. 777-842, 12 pls.
8. Klapper, G., & Ziegler, W., 1967, Evolutionary development of the *Icriodus latericrescens* group (Conodonta) in the Devonian of Europe and North America: Palaeontographica, Abt. A, Band 127, Liefg. 1-3, p. 68-83, 4 pls.
9. Klapper, G., Lindström, M., & Ziegler, W., 1967, *Polygnathus* Hinde, 1879 (Conodonta): Proposed designation of a type-species under the plenary powers: Bull. Zoological Nomenclature, v. 24, p. 239-242.
10. Sandberg, C. A., & Klapper, G., 1967, Stratigraphy, Age, and Paleotectonic Significance of the Cottonwood Canyon Member of the Madison Limestone in Wyoming and Montana: U.S. Geol. Survey, Bull. 1251-B, 70 p.
11. Amsden, T. W., Klapper, G., & Ormiston, A. R., 1968, Lower Devonian limestone of post-Hunton age, Turkey Creek Inlier, Marshall County, south-central Oklahoma: Am. Assoc. Petroleum Geologists, Bull., v. 52, p. 162-166.
12. Orr, R. W., & Klapper, G., 1968, Two new conodont species from Middle-Upper Devonian boundary beds of Indiana and New York: Jour. Paleontology, v. 42, p. 1066-1075, 2 pls.
13. Klapper, G., 1969, Lower Devonian conodont sequence, Royal Creek, Yukon Territory, and Devon Island, Canada, *with* a section on Devon Island stratigraphy, by A. R. Ormiston: Jour. Paleontology, v. 43, p. 1-27, 6 pls.
14. Berdan, J. M., Berry, W. B. N., Boucot, A. J., Cooper, G. A., Jackson, D. E., Johnson, J. G., Klapper, G., Lenz, A. C., Martinsson, A., Oliver, W. A., Jr., Rickard, L. V. & Thorsteinsson, R., 1969, Siluro-Devonian boundary in North America: Geol. Soc. America, Bull, v. 80, p. 2165-2174.
15. Klapper, G., Philip, G. M., & Jackson, J. H., 1970, Revision of the *Polygnathus varcus* Group (Conodonta, Middle Devonian): Neues Jahrbuch Geol. Paläont. Mh., Jg. 1970, Heft 11, p. 650-667, 3 pls.

16. Klapper, G., Berry, W. B. N., & Boucot, A. J., 1970, Conodont correlations, a Chapter *in* Correlation of the North American Silurian rocks, by Berry, W. B. N., & Boucot, A. J.: Geol. Soc. America, Special Paper 102, p. 35-38.
- *17. Klapper, G., Sandberg, C. A., Collinson, Charles, Huddle, J. W., Orr, R. W., Rickard, L. V., Schumacher, Dietmar, Seddon, George, and Uyeno, T. T., 1971 North American Devonian conodont biostratigraphy, *in* Sweet, W. C., & Bergström, S. M., eds., Symposium on conodont biostratigraphy: Geol. Soc. America, Memoir 127, p. 285-316.
18. Klapper, G., 1971, Sequence within the conodont genus *Polygnathus* in the New York lower Middle Devonian: Geol. et Palaeontologica, v. 5, p. 59-72, 3 pls.
19. Beinert, R. J., Klapper, G., Sandberg, C. A., & Ziegler, W., 1971, Revision of *Scaphignathus* and description of *Clydagnathus? ormistoni* n. sp. (Conodonta, Upper Devonian): Geol. et Palaeontologica, v. 5, p. 81-87, 2 pls.
20. Klapper, G., 1971 *Patrognathus* and *Siphonodella* (Conodonta) from the Kinderhookian (Lower Mississippian) of western Kansas and southwestern Nebraska: Kansas Geol. Survey, Bull. 202, part 3, 14 p., 2 pls.
21. Klapper, G., & Philip, G. M., 1971, Devonian conodont apparatuses and their vicarious skeletal elements: Lethaia, v. 4, p. 429-452.
- *22. Klapper, G., & Philip, G. M., 1972, Familial classification of reconstructed Devonian conodont apparatuses, *in* Lindström, M. & Ziegler, W., eds., Symposium on conodont taxonomy: Geol. et Palaeontologica, Symposium vol. 1, p. 97-105, 4 pls
23. Amsden, T. W., & Klapper, G., 1972, Misener Sandstone (Middle-Upper Devonian), north-central Oklahoma: Am. Assoc. Petroleum Geologists, Bull, v. 56, p. 2323-2334.
24. Klapper, G., Lindström, M., Sweet, W., & Ziegler, W., 1973, Catalogue of conodonts, Ziegler, W., ed.: Schweizerbart'sche Verlagsbuchhandlung, Stuttgart, v. 1, 520 p., 27 pls.
25. Perry, D. G., Klapper, G., & Lenz, A. C., 1974. Age of the Ogilvie Formation (Devonian), northern Yukon: Based primarily on the occurrence of brachiopods and conodonts: Canadian Jour. Earth Sci., v. 11, p. 1055-1097, 8 pls.
26. Klapper, G., & Murphy, M. A., 1975, Silurian - Lower Devonian conodont sequence in the Roberts Mountains Formation of central Nevada: Univ. California Pub. Geol. Sci., v. 111, 65 p., 12 pls. (date of imprint, 1974).
27. Klapper, G., Lindström, M., Sweet, W., & Ziegler, W., 1975, Catalogue of conodonts, Ziegler, W., ed.: Schweizerbart'sche Verlagsbuchhandlung, Stuttgart, v. 2, 404 p., 25 pls.
28. Klapper, G., & Johnson, D. B., 1975, Sequence in conodont genus *Polygnathus* in Lower Devonian at Lone Mountain, Nevada: Geol. et

- Palaeontologica, v. 9, p. 65-83, 3 pls.
29. Barrick, J. E., & Klapper, G., 1976, Multielement Silurian (late Llandoveryan-Wenlockian) conodonts of the Clarita Formation, Arbuckle Mountains, Oklahoma, and phylogeny of *Kockelella*: Geol. et Palaeontologica, v. 10, p. 59-100, 4 pls.
 30. Ziegler, W., Klapper G., & Johnson, J. G., 1975, Redefinition and subdivision of the *varcus*-Zone (Conodonts, Middle-? Upper Devonian) in Europe and North America: Geol. et Palaeontologica, v. 10, p. 109-140, 4 pls.
 31. Glenister, B. F., Klapper, G., & Chauff, K., 1976, Conodont pearls?: Science, v. 193, p. 571-573.
 - *32. Klapper, G., 1977, Conodonts, in The Silurian-Devonian Boundary, Martinsson, A., ed.: Int. Union Geol. Sci. ser. A, no. 5, p. 318-319.
 33. Pedder, A. E. H., & Klapper, G., 1977, Fauna and correlation of the type section of the Cranswick Formation (Devonian), Mackenzie Mountains, Yukon Territory: Geol. Survey Canada, Spec. Paper 77-1B, p. 227-234.
 34. Klapper, G., Lindström, M., Sweet, W. C., & Ziegler, W., 1977, Catalogue of conodonts, Ziegler, W., ed: Schweizerbart'sche Verlagsbuchhandlung, Stuttgart, v. 3, 574 p., 39 pls.
 - *35. Klapper, G., with contributions by D. B. Johnson, 1977, Lower and Middle Devonian conodont sequence in central Nevada, in Murphy, M. A., Berry, W. B. N., & Sandberg, C. A., eds., Western North America: Devonian: Univ. California, Riverside Campus Mus. Contr., v. 4, p. 33-54.
 36. Klapper, G., 1977, Lower-Middle Devonian boundary conodont sequence in the Barrandian area of Czechoslovakia: Casopis mineral. geol., v. 22, p. 401-406.
 37. Glenister, B. F., Klapper, G., & Chauff, K., 1978, Nautiloid uroliths composed of phosphatic hydrogel: Science, v. 199, p. 209.
 38. Klapper, G., & Barrick, J.E., 1978, Conodont ecology: pelagic versus benthic: Lethaia, v. 11, p. 15-23.
 39. Johnson, J. G., & Klapper, G., 1978, Devonian brachiopods and conodonts from central Oregon: Jour. Paleontology, v. 52, p. 295-299, 1 pl.
 40. Klapper, G., Ziegler, W., & Mashkova, T. V., 1978, Conodonts and correlation of Lower-Middle Devonian boundary beds in the Barrandian area of Czechoslovakia: Geol. et Palaeontologica, v. 12, p. 103- 116, 2 pls.
 41. Chauff, K. M., & Klapper, G., 1978, New conodont genus *Apatella* (Late Devonian), possible homeomorph *Bactrognathus* (Early Carboniferous, Osagean Series), and homeomorphy in conodonts: Geol. et Palaeontologica, v. 12, p. 151-164, 3 pls.

- *42. Klapper, G., & Ziegler, W., 1979, Devonian conodont biostratigraphy, *in* The Devonian System: A Palaeontological Assoc. Symposium: Spec. Papers in Palaeontology, no. 23, p. 199-224.
- 43. Klapper, G., & Johnson, J. G., 1980, Endemism and dispersal of Devonian conodonts: Jour. Paleontology, v. 54, p. 400-455, 4 pls.
- 44. Johnson, J. G., Klapper, G., & Trojan, W. R., 1980, Upper range of *Stringocephalus* (Devonian Brachiopoda): Newsl. Stratigr., v. 8, p. 232-235.
- 45. Johnson, J. G., Klapper, G., & Trojan, W. R., 1980, Brachiopod and conodont successions in the Devonian of the northern Antelope Range, central Nevada: Geol. et Palaeontologica., v. 14, p. 77-116, 4 pls.
- 46. Klapper, G., & Murphy, M. A., 1980, Conodont zonal species from the *delta* and *pesavis* Zones (Lower Devonian) in central Nevada: N. Jb. Geol. Paläont. Mh., v. 1980, no. 8, p. 490-504, 3 pls.
- 47. Uyeno, T. T., & Klapper, G., 1980, Summary of conodont biostratigraphy of the Blue Fiord and Bird Fiord Formations (Lower-Middle Devonian) at the type and adjacent areas, southwestern Ellesmere Island, Canadian Arctic Archipelago: Geol. Survey of Canada, Paper 80-1C, p. 81-93, 3 pls.
- 48. Klapper, G., Lindström, M., Sweet, W. C., & Ziegler, W., 1981, Catalogue of conodonts, Ziegler, W., ed.: Schweizerbart'sche Verlagsbuchhandlung, v. 4, 445 p., 41 pls.
- 49. Klapper, G., 1981, Systematics of all genera with Silurian and Devonian type species, *in* Clark, D. L. and others, Conodonta, *in* Robison, R. A., ed., Treatise on Invertebrate Paleontology, Part W, Miscellanea, Supplement 2, Geol. Soc. America, and Univ. Kansas, Lawrence, 202 p.
- 50. Johnson, D. B., & Klapper G., 1981, New Early Devonian conodont species of central Nevada: Jour. Paleontology, v. 55, p. 1237-1250, 2 pls.
- 51. Puchkov, V. N., Klapper, G., & Mashkova, T. V., 1982, Natural assemblages of *Palmatolepis* from the Upper Devonian of the northern Urals: Acta Palaeontologica Polonica, v. 26, p. 281-298, pl. 25 (date of imprint, 1981).
- 52. Ziegler, W., & Klapper, G., 1982, Subcommittee on Devonian Stratigraphy: Decisions since 1973 and present status: Courier Forschungsinstitut Senckenberg, v. 55, p. 7-12.
- 53. Ziegler, W., & Klapper, G., 1982, The *disparilis* Zone, the proposed level for the Middle-Upper Devonian boundary: Courier Forschungsinstitut Senckenberg, v. 55, p. 463-492, 3 pls.
- 54. Ziegler, W., & Klapper, G., 1983, Devonian Series Boundaries: Decisions of the IUGS Subcommittee: Episodes, v. 1982, no. 4, p. 18-21.

55. Klapper, G., & Barrick, J. E., 1983, Middle Devonian (Eifelian) conodonts from the Spillville Formation in northern Iowa and southern Minnesota: Jour. Paleontology, v. 57, p. 1212-1243, 6 pls.
56. Kendall, G. W., Johnson, J. G., Brown, J. O., & Klapper, G., 1983, Stratigraphy and facies across Lower Devonian-Middle Devonian boundary, central Nevada: Amer. Assoc. Petroleum Geologists Bull., v. 67, p. 2199-2207.
57. Klapper, G., & Bergström, S. M., 1984, The enigmatic Middle Ordovician fossil *Archeognathus* and its relations to conodonts and vertebrates: Jour. Paleontology, v. 58, p. 949-976, 9 pls.
58. Feist, R., & Klapper, G., 1985, Stratigraphy and conodonts in pelagic sequences across the Middle-Upper Devonian boundary, Montagne Noire, France: Palaeontographica, Abt. A, v. 188, p. 1-18.
59. Klapper, G., 1985, Sequence in conodont genus *Ancyrodella* in Lower *asymmetricus* Zone (earliest Frasnian, Upper Devonian) of the Montagne Noire, France: Palaeontographica, Abt. A, v. 188, p. 19-34, 11 pls.
60. Klapper, G., & Lane, H. R., 1985, Upper Devonian (Frasnian) conodonts of the *Polygnathus* biofacies, N.W.T., Canada: Jour. Paleontology, v. 59, p. 904-951, 11 pls.
61. Johnson, J. G., Klapper, G., & Sandberg, C. A., 1985, Devonian eustatic fluctuations in Euramerica: Geol. Soc. America Bull., v. 96, p. 567-587.
62. Ziegler, W., & Klapper, G., 1985, Stages of the Devonian System: Episodes, v. 8, p. 104-109.
63. Johnson, J. G., Klapper, G., Murphy, M. A., & Trojan, W. R., 1986, Devonian Series boundaries in central Nevada and neighboring regions, western North America, *in* Ziegler, W., & Werner, R., eds., Devonian Series Boundaries - Results of world-wide studies: Courier Forschungsinstitut Senckenberg, v. 75, p. 177-196 [date of imprint, 1985].
64. Feist, R., Kirchgasser, W. T., & Klapper, G., 1986, Proposal for a Middle-Upper Devonian Boundary Stratotype, *in* Ziegler, W., & Werner, R., eds., Devonian Series Boundaries - Results of world-wide studies: Courier Forschungsinstitut Senckenberg, v. 75, p. 409-410 [date of imprint, 1985].
65. Johnson, J. G., Klapper, G., & Sandberg, C. A., 1986, Late Devonian eustatic cycles around margin of Old Red Continent: Ann. Soc. géol. Belgique, T. 109, Spec. vol. "Aachen 1986", p. 141-147.
66. Klapper, G., & Foster, C. T., Jr., 1986, Quantification of outlines in Frasnian (Upper Devonian) platform conodonts: Canadian Jour. Earth Sci., v. 23, p. 1214-1222, 2 pls.
67. Klapper, G., Feist, R., & House, M. R., 1987, Decision on the boundary stratotype for the Middle/Upper Devonian Series Boundary: Episodes, v. 10, p. 97-101.

68. Klapper, G., 1988, Intent and reality in biostratigraphic zonation: a reply to Sandberg, Ziegler, and Bultynck (1988): *Newsl. Stratigr.*, v. 19, no. 3, p. 179-183.
69. Klapper, G., 1989, The Montagne Noire Frasnian (Upper Devonian) conodont succession, *in* McMillan, N. J., Embry, A. F., & Glass, D. J., eds., *Devonian of the World*, Canadian Soc. Petrol. Geol., Mem. 14, v. 3, p. 449-468, 4 plates (date of imprint, 1988).
70. Klapper, G., & Lane, H. R., 1989, Frasnian (Upper Devonian) conodont sequence at Luscar Mountain and Mount Haultain, Alberta Rockies: *in* McMillan, N. J., Embry, A. F., & Glass, D. J., eds., *Devonian of the World*, Canadian Soc. Petrol. Geol., Mem. 14, v. 3, p. 469-478, 2 plates (imprint, 1988).
71. Goodfellow, W. D., Geldsetzer, H., McLaren, D. J., Orchard, M. J., & Klapper, G., 1989, The Frasnian-Famennian extinction: current results and possible causes: *in* McMillan, N. J., Embry, A. F., & Glass, D. J., eds., *Devonian of the World*, Canadian Soc. Petrol. Geol., Mem. 14, v. 3, p. 9-21 (imprint, 1988).
72. Goodfellow, W. D., Geldsetzer, H., McLaren, D. J., Orchard, M. J., & Klapper, G., 1989, Geochemical and isotopic anomalies associated with the Frasnian-Famennian extinction: *Historical Biology*, v. 2, p. 51-72.
73. Becker, R. T., Feist, R., Flajs, G., House, M. R., & Klapper, G., 1989, Frasnian-Famennian extinction events in the Devonian at Coumiac, southern France: *C. R. Acad. Sci. Paris*, v. 309, ser. II, p. 259-266.
74. Barrick, J. E., Klapper, G., & Amsden, T. W., 1990a, Late Ordovician-Early Devonian conodont succession in the Hunton Group, Arbuckle Mountains and Anadarko Basin, Oklahoma: *Oklahoma Geological Survey Guidebook 27*, p. 55-62.
75. Barrick, J. E., Klapper, G., & Amsden, T. W., 1990b, Stop 1: Hunton Group (Late Ordovician-Early Devonian): *Oklahoma Geological Survey Guidebook 27*, p. 5-9.
76. Barrick, J. E., and Klapper, G., 1990, Stop 2: Henryhouse and Haragan Formations (Late Silurian-Early Devonian) and Woodford Shale (Late Devonian-Early Mississippian): *Oklahoma Geological Survey Guidebook 27*, p. 11-13.
- . Klapper, G. and Johnson, J. G., 1990, Revision of Middle Devonian conodont zones, p. 934-936, 941, *in* Johnson, J. G., *Lower and Middle Devonian brachiopod-dominated communities of Nevada, and their position in a biofacies-province-realm model: Journal of Paleontology*, v. 64, p. 902-941.
77. Klapper, G., 1990, Frasnian species of the Late Devonian conodont genus *Ancyrognathus*: *Journal of Paleontology*, v. 64, p. 998-1025.
78. Klapper, G., Sweet, W. C., & Ziegler, W., 1991, Catalogue of Conodonts, Ziegler, W., ed.: *Schweizerbart'sche Verlagsbuchhandlung*, v. 5, 212 p., 13 pls. [my contribution to v.

- 5 is a 163-page manuscript with 7 plates; completed in 1986!].
- *79. Klapper, G., 1991, Accuracy of biostratigraphic zones: *Palaios*, v. 6, p. 1 [invited editorial column].
 - *80. Barrick, J. E., and Klapper, G., 1992, Late Silurian - Early Devonian conodonts from the Hutton Group (upper Henryhouse, Haragan, and Bois d'Arc Formations), south-central Oklahoma, *in* Special Papers in Paleontology and Stratigraphy: A tribute to Thomas W. Amsden: Oklahoma Geological Survey Bulletin 145, p. 19-65, 6 pls.
 - *81. Johnson, J. G., and Klapper, G., 1992, North American Midcontinent Devonian T-R Cycles: *in* Special Papers in Paleontology and Stratigraphy: A tribute to Thomas W. Amsden: Oklahoma Geological Survey Bulletin 145, p. 127-135, 2 figs.
 - 82. Klapper, G., and Foster, C. T., Jr., 1993, Shape analysis of Frasnian species of the Late Devonian conodont genus *Palmatolepis*. The Paleontological Society Memoir 32, (Journal of Paleontology, v. 67, no. 4, supp.), 35 p., 21 figures.
 - *83. Klapper, G., Feist, R., Becker, R. T., and House, M. R., 1994, Definition of the Frasnian/Famennian Stage boundary. Episodes, v. 16, no. 4, p. 433-441.
 - *84. Klapper, G., 1995, Preliminary analysis of Frasnian, Late Devonian conodont biogeography: Historical Biology, v. 10, p. 103-117. [invited paper delivered at Paleobiogeography Symposium of North American Paleontological Convention, Chicago, June 1992, revised manuscript submitted in June 1993, finally published in May 1995; see Abstract no. 8 below].
 - *85. Klapper, G., Kirchgasser, W. T., & Baesemann, J. T., 1995, Graphic correlation of a Frasnian (Upper Devonian) composite standard, *in* K. O. Mann and H. R. Lane, eds., Graphic Correlation: SEPM (Society for Sedimentary Geology), Special Publication 53, p. 177-184. [associated Abstract no. 10 below].
 - 86. Klapper, G., Kuz'min, A. V., & Ovnatanova, N. S., 1996, Upper Devonian conodonts from the Timan-Pechora region, Russia, and correlation with a Frasnian composite standard: Journal of Paleontology, v. 70, p. 131-152, 10 figures, 2 tables [associated Abstract no. 11 below].
 - 87. Johnson, J. G., Klapper, G., & Elrick, M., 1996, Devonian transgressive-regressive cycles and biostratigraphy, northern Antelope Range, Nevada: Establishment of reference horizons for global cycles: *Palaios*, v. 11, p. 3-14.
 - 88. Klapper, G., 1997, Graphic correlation of Frasnian (Upper Devonian) sequences in Montagne Noire, France and Western Canada, *in* G. Klapper, M. A. Murphy, and J. A. Talent, eds., Paleozoic sequence stratigraphy, biostratigraphy, and biogeography: Studies in honor of J. Granville ("Jess") Johnson: Geological Society of America Special Paper 321, p. 113-129.

89. Klapper, G., 1997, Appendix: Conodont biostratigraphy, p. 866-867 in A.D. George, P. E. Playford, C. McA. Powell, and P. M. Tornatora, Lithofacies and sequence development on an Upper Devonian mixed carbonate-siliciclastic fore-reef slope, Canning Basin, Western Australia: *Sedimentology*, v. 44, p. 843-867.
90. McLean, R. A., and Klapper, G., 1998, Biostratigraphy of Frasnian (Upper Devonian) strata in western Canada, based on conodonts and rugose corals: *Bulletin of Canadian Petroleum Geology*, v. 46, p. 515-563.
91. Klapper, G., and Becker, R. T., 1999, Comparison of Frasnian (Upper Devonian) conodont zonations in E. Serpagli and C. Corradini, eds., *Studies on Conodonts, Proceedings of the Seventh European Conodont Symposium, Bologna-Modena, 1998: Bolletino della Società Paleontologica Italiana*, v. 37 (2/3), p. 339-348.
92. Klapper, G., 2000, Species of Spathognathodontidae and Polygnathidae (Conodonta) in the recognition of Upper Devonian stage boundaries, in P. Bultynck, ed., *Subcommission on Devonian Stratigraphy: Fossil groups important for boundary definition: Courier Forschungsinstitut Senckenberg*, v. 220, p. 153-159.
93. House, M. R., Menner, V. V., Becker, R. T., Klapper, G., Ovnatanova, N. S., and Kuz'min, A. V., 2000. Reef episodes, anoxia and sea-level changes in the Frasnian of the southern Timan (NE Russian platform), in E. Insalaco, P. W. Skelton and T. J. Palmer (eds.), *Carbonate Platform Systems: components and interactions.: Geological Society of London, Special Publications*, v. 178, p. 147-176.
94. House, M. R., Becker, R. T., Feist, R., Flajs, G., Girard, C., and Klapper, G., 2000, The Frasnian/Famennian boundary GSSP at Coumiac, southern France, in P. Bultynck, ed., *Subcommission on Devonian Stratigraphy: Recognition of Devonian series and stage boundaries in geological areas: Courier Forschungsinstitut Senckenberg*, v. 225, p. 59-75.
95. Klapper, G., Uyeno, T. T., Armstrong, D. K., and Telford, P. G., 2004, Conodonts of the Williams Island and Long Rapids Formations (Upper Devonian, Frasnian-Famennian) of the Onakawana B Drillhole, Moore River Basin, Northern Ontario, with a revision of Lower Famennian species: *Journal of Paleontology*, v. 78, p. 371-387.
96. Klapper, G., Uyeno, T. T., Armstrong, D. K., and Telford, P. G., 2004, *Palmatolepis arta*, new name for a Famennian conodont: *Journal of Paleontology*, v. 78, p. 1221.
97. Girard, C., Klapper, G., and Feist, R., 2005, Subdivision of the terminal Frasnian *linguiformis* Zone, revision of the correlative interval of Montagne Noire Zone 13, and discussion of stratigraphically significant associated trilobites, in D. J. Over, J. R. Morrow, and P. B. Wignall, eds., *Understanding Late Devonian and Permian-Triassic Biotic and Climatic Events: Towards an Integrated Approach: Developments in Palaeontology and Stratigraphy*, v. 20, p. 181-198.

98. Klapper, G., 2007, Frasnian (Upper Devonian) conodont succession at Horse Spring and correlative sections, Canning Basin, Western Australia: *Journal of Paleontology*, v. 81, p. 513-537.
99. Klapper, G., 2007, Erratum: *Journal of Paleontology*, v. 81, p. 821.
100. Klapper, G., 2007, Conodont taxonomy and the recognition of the Frasnian/Famennian (Upper Devonian) stage boundary: *Stratigraphy*, v. 4, no. 1, p. 67-76.
101. Work, D. M., Mason, C. E., and Klapper, G., 2007, The Middle Devonian (Givetian) ammonoid *Pharciceras* from the New Albany Shale, Kentucky: *Journal of Paleontology*, v. 81, p. 1510-1515.
102. Groves, J. R., Brenckle, P. L., Klapper, G., Lane, H. R., and Wahlman, G. P., 2008, In Memoriam: George A. Sanderson, Jr. (1926–2008): *Journal of Foraminiferal Research*, v. 38, p. 374-376.
103. Klapper, G., 2009, William M. Furnish (1912-2007), in D. J. Over, ed., Conodont Studies Commemorating the 150th Anniversary of the First Conodont Paper (Pander, 1856) and the 40th Anniversary of the Pander Society: *Palaeontographica Americana*, no. 62, p. 9-10.
104. Klapper, G., 2009, Upper Devonian conodonts in the Canning Basin, in P. E. Playford, R. M. Hocking, and A. E. Cockbain, Devonian Reef Complexes of the Canning Basin, Western Australia: Geological Survey of Western Australia, Bulletin 145, Appendix 1, p. 405-413.
105. Elrick, M., Berkyová, S., Klapper, G., Sharp, Z., Joachimski, M., and Frýda, J., 2009, Stratigraphic and oxygen isotope evidence for My-scale glaciation driving eustasy in the Early-Middle Devonian greenhouse world: *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 276, p. 170-181.
106. Klapper, G. and Trinajstić, K., 2009, Appendix: conodont biostratigraphy, in George, A. D., Trinajstić, K. M., and Chow, N., Frasnian reef evolution and palaeogeography, SE Lennard Shelf, Canning Basin, Australia: Geological Society Special Publication no. 314, p. 100-103.
107. Barrick, J. E., Klapper, G., Kleffner, M. A., and Karlsson, H. R., 2010, Conodont biostratigraphy and stable isotope chemostratigraphy of the lower Henryhouse Formation (Gorstian-early Ludfordian, Ludlow, Silurian), southern Oklahoma, USA: *Memoirs of the Association of Australasian Palaeontologists*, v. 39, p. 51-70.
108. Vodrážková, S., Klapper, G., and Murphy, M. A., 2011, Early Middle Devonian conodont faunas (Eifelian, *costatus-kockelianus* zones) from the Roberts Mountains and adjacent areas in central Nevada: *Bulletin of Geosciences*, v. 86(4), p. 737-764.
109. Klapper, G., Crônier, C., and Vodrážková, S. 2012. Conodont evidence for a latest Emsian to early Eifelian (Devonian) age for the phacopid trilobite *Plagiolaria kitabi* from Uzbekistan. *Memoirs of the Association of Australasian Palaeontologists*, v. 44, 25-26.
110. Klapper, G., and Vodrážková, S. 2013. Ontogenetic and intraspecific variation in the late Emsian – Eifelian (Devonian) conodonts *Polygnathus serotinus* and *P. bultyncki* in the Prague Basin (Czech Republic) and Nevada (western U.S.). *Acta Geologica Polonica*, v. 63(2), p. 153-174.

111. Klapper, G., and Kirchgasser, W. T. 2016. Frasnian Late Devonian conodont biostratigraphy in New York State: Graphic Correlation and Taxonomy. *Journal of Paleontology*, v 90, p. 525-554.
112. Klapper, G., Uyeno, T. T., Armstrong, D. K., and Telford, P. G., 2017. *Palmatolepis spallettae*, new name for a Frasnian conodont species. *Journal of Paleontology*, v. 91, p. 578.
113. Klapper, G., 2017, The Occurrence of *Polygnathus tuberculatus* in lag deposits near the Middle-Upper Devonian boundary and its stratigraphic range in the conodont zonation. *Stratigraphy*, v. 14, nos. 1-4, p. 217-222. [Memorial volume for H. Richard Lane]
114. Klapper, G., 2021, Revision of the Frasnian Late Devonian conodont genus *Ancyrodella*. *Bulletin of Geosciences*, v. 96, no. 3, p. 295-325.
115. Barrick, J. E, Klapper, G., and Peavey, F. N., 2024, Conodont biostratigraphy of the upper member of the Henryhouse Formation (late Ludfordian-Prídolí, Silurian), southern Oklahoma, USA. *Stratigraphy*, v. 21(4), p. 287-322.

ABSTRACTS (* = invited presentations)

- *1. Klapper, G., 1968, Lower Devonian conodont succession in central Nevada (Abstr.): *Geol. Soc. America, Cordilleran Section, Program 64th Ann. Meeting*, p. 72-73.

[Between 1968 and 1987, there were at least four abstracts given at national (references no. 26 and 35 above) and international (references no. 22 and 42) meetings. As these are duplicated by the contents of the published papers, they are not doubly listed.

- 2.. Klapper, G., & Foster, C. T., Jr., 1987, Outline analysis of platform conodonts: *Geological Society of America Abstracts with Programs*, v. 19, no. 7, p. 728.
3. Klapper, G., 1989, The effect of graphic correlation, multielement taxonomy, and shape analysis on Upper Devonian, Frasnian conodont biostratigraphy: *Geological Society of America Abstracts with Programs*, v. 21, no. 4, p. 18.
4. Klapper, G., 1991, Multielement species-level taxonomy of *Palmatolepis* (Late Devonian, Frasnian): *Canadian Paleontology Conference I and Pander Society Meeting, Program and Abstracts*, p. 43.
5. Klapper, G., and Foster, C. T., Jr., 1991, Outline analysis of Late Devonian conodonts: *Geological Society of America Abstracts with Programs*, v. 23, no. 5, p. A279.
6. Kirchgasser, W. T., and Klapper, G., 1992, Graphic correlation using litho- and biostratigraphic markers in the uppermost Middle and

- Upper Devonian (Frasnian) of New York State. Geological Society of America, Abstracts with programs, v. 24, no. 3, p. 32.
7. Klapper, G., and Kirchgasser, W. T., 1992, Zonal and graphic correlation of the New York and Australian Upper Devonian (Frasnian) conodont and ammonoid sequences. Geological Society of America, Abstracts with programs, v. 24, no. 4, p. 26.
 - *8. Klapper, G., 1992, Biostratigraphy and biogeography of Frasnian, Upper Devonian conodonts: Fifth North American Paleontological Convention, Abstracts and Program, The Paleontological Society, Special Publication No. 6, p. 166.
 9. Ormiston, A. R., and Klapper, G., 1992, Paleoclimate controls on Upper Devonian source rock sequences and stacked extinctions: Fifth North American Paleontological Convention, Abstracts and Program, The Paleontological Society, Special Publication No. 6, p. 227.
 - *10. Klapper, G., Kirchgasser, W. T., and Baesemann, J. T., 1993, Graphic correlation of the Frasnian Upper Devonian composite. Geological Society of America, Abstracts with programs, v. 25, no. 2, p. 30 [invited paper presented at symposium on graphic correlation].
 11. Klapper, G., Kuz'min, A. V., & Ovnanova, N. S., 1995, Upper Devonian conodonts from the Timan-Pechora region, Russia, and correlation with a Frasnian composite standard: Abstracts & Programme, First Australian Conodont Symposium (AUSCOS-1) and the Boucot Symposium, Macquarie University, p. 48.
 12. Kelly, B. K., Manger, W. L., and Klapper, G., 1997, Conodonts from the Chattanooga Shale and the Devonian-Mississippian boundary, southern Ozark region: Geological Society of America, Abstracts with programs, v. 29, no. 6, p. 159.
 - *13. Klapper, G., 1998, Frasnian (Upper Devonian) high-resolution conodont correlations. Geological Society of America, Abstracts with programs, v. 30, no. 2, p. 28.
 14. Klapper, G., and Becker, R. T., 1998, Comparison of Frasnian (Upper Devonian) conodont zonations, p. 53-54, *in* G. Bagnoli (ed.) ECOS VII Abstracts, Bologna-Modena, 1998: Tipografia Compositori Bologna.
 15. Spalletta, C., Farabegoli, E., Klapper, G., and Perri, M. C., 2001, Frasnian-Famennian boundary at Pramorio, Carnic Alps, Italy: Mid-Palaeozoic Bio- and Geodynamics: The North Gondwana-Laurussia Interaction: 15th International Senckenberg Conference, p. 89.
 16. Feist, R., Klapper, G., and Lerosey-Aubril, R., 2003, Conodont based trilobite biozonation in the Late Devonian off-shore realm. Geological Society of America, Abstracts with Programs, v. 35, no. 7, p. 385.
 - *17. Klapper, G., 2006, Frasnian (Upper Devonian) conodont succession at Horse Spring and correlative sections, Canning Basin, Western Australia: Geological Society of America, Abstracts with Programs, v. 38, no. 7, p. 184.
 18. Elrick, M., Atudorei, V., Sharp, Z., and Klapper, G., 2006, Challenges to Early-Middle Devonian greenhouse climate interpretations: oxygen

- isotopic evidence from conodont apatite: Geological Society of America, Abstracts with Programs, v. 38, no. 7, p. 267.
19. Playford, P. E., Klapper, G., Hocking, R. M., and Becker, R. T., 2006, The Frasnian-Famennian Boundary in the Canning Basin Western Australia: Gondwana Palaeozoic Basins, AAPG International Conference and Exhibition, November 5-8, Perth, Western Australia.
 - *20. Klapper, G. 2019, Mike Murphy's Impact: 11th North American Paleontological Conference, Programs with Abstracts, p. 200-201. [Keynote speaker].

NON-REFEREED PUBLICATIONS (including book reviews)

1. Klapper, G., 1968, (1967), Review of *Conodonts*, by M. Lindström: Quart. Review of Biology, v. 42, p. 535.
2. Klapper, G., 1975, Conodont zones and correlation of the Cedar Valley-State Quarry sequence; the Independence Shale problems, *in* Heckel, P. H., Kettenbrink, E. C., & Klapper, G., Devonian limestone facies: Cedar Valley and State Quarry Limestones in the Iowa City region: Tri-State Geol. Field Conf. Guidebook, 39th Ann. Mtg., p. 1-19.
3. Klapper, G., & Johnson, J. G., 1979, Review of Late Silurian and Early Devonian graptolite, brachiopod, and coral faunas from northwestern and Arctic Canada, by Jackson, D. E., Lenz, A. C., & Pedder, A.E.H.: Geoscience Canada, v. 6, p. 224.
4. Bunker, B., Klapper, G., & Witzke, B., 1983, New stratigraphic interpretations of the Middle Devonian rocks of Winneshiek and Fayette Counties, northeastern Iowa: Geol. Soc. Iowa, Field Trip Guidebook, no. 39, p. 1-38.
5. Klapper, G., 1983, Preliminary account of the Middle Devonian (*varcus* Zone) - Upper Devonian (Frasnian) conodont sequence in the eastern Montagne Noire: IUGS Subcommission on Devonian Stratigraphy, Reports, p. 1-4.
6. Bunker, B., & Klapper, G., 1984, Conodont zones and correlation of the Cedar Valley-State Quarry interval of eastern Iowa: Geol. Soc. Iowa, Field Trip Guidebook, no. 41, p. 15-18.
7. Witzke, B. J., Bunker, B. J., & Klapper, G., 1985, Devonian stratigraphy in the Quad Cities area, eastern Iowa-northwestern Illinois: S.E.P.M. Great Lakes section, 15th Ann. Field Conf. Guidebook, p. 19-64.

8. Klapper, G., 1986, Memorial to Thomas Joseph Morton Schopf: Geological Society of America Memorials, v. 16, 5 p.
9. Becker, R. T., Feist, R., House, M. R., Babin, C., Flajs, G., Klapper, G., Lethiers, G., Pedder, A., Racheboeuf, Truyols-Massoni, M., 1990, The Frasnian-Famennian boundary and adjacent strata of the eastern Montagne Noire, France, Guidebook of the Field Meeting, R. Feist, ed., International Union of Geological Sciences, Subcommittee on Devonian Stratigraphy, 69 p.
10. Klapper, G., & Oliver, W. A., Jr., 1995, The Detroit River Group is Middle Devonian: Discussion on "Early Devonian age of the Detroit River Group, inferred from Arctic stromatoporoids." Canadian Journal of Earth Sciences, v. 32, p. 1070-1073.
11. Klapper, G., 2000, A flawed Devonian time scale.: The Australian Geologist, v. 114, p. 12.
12. Klapper, G., 2000, Comments on "Flawed Timescale, or Flawed Logic?" : The Australian Geologist, v. 116, p. 6.
13. Collins, D., Klapper, G., Nassichuk, W. W., Semken, H., and Spinosa, C., 2013, Memorial to Brian Frederick Glenister (1928-2012). Geological Society of America Memorials, v. 42.

GRANTS

I was the sole investigator (PI) on all the grants listed, except for the ROA award to W. T. Kirchgasser. Since 1974, I have been successful in six successive grant applications to the National Science Foundation, and co-authored the ROA proposal.

NSF GA-43791 and its renewal, NSF EAR74-12742 [July 1974-February 1979] - Biostratigraphic, paleoecologic, and paleogeographic study of Silurian and Devonian conodonts. \$96,100.

NSF EAR81-13462 [December 1981-May 1984] - Biostratigraphic, paleoecologic, and paleobiogeographic study of Silurian and Devonian conodonts. \$70,000.

NSF EAR84-14722 [March 1985 - June 1987; an Accomplishment-Based Renewal] - Biostratigraphic, taxonomic, and paleoecologic study of Middle and Upper Devonian conodont sequences in the Montagne Noire, France, and comparison with correlative sequences elsewhere in Europe and North America. \$117,165.

NSF EAR87-06567 [June 1987 - May 1989] - Biostratigraphy, taxonomy, and paleogeography of conodont sequences in the Middle and Late Devonian (Frasnian) tropics. \$94,799.

NSF EAR89-03475 [June 1989 - May 1991] - Biostratigraphy, biogeography, and shape analysis of Late Devonian, Frasnian conodonts. \$100,000.

Research Opportunity Award to William Kirchgasser, SUNY-Potsdam, supplemented to EAR89-03475 [June 1990 - November 1991] - Conodont correlations of lower Upper Devonian goniatite horizons in Western Australia and New York State. \$13,813.

Courses Taught at the University of Iowa

Principles of Paleontology, Micropaleontology, Seminar on Biostratigraphy, Historical Geology, Evolution and the History of Life (team taught with Ann F. Budd).

Courses Taught at Northwestern University

Earth System History (203) [2007-2010, 2012, 2013, 2014, 2015 (twice), 2016, 2017].

Graduate Student Advisorship

Seventeen Ph.D. students and eight M.S. students who completed degrees from 1969-1998.

Notable Invited Lectures

University of Chicago and Northwestern University, May, 2002.