

David A. Grimaldi

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Division of Invertebrate Zoology  
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## RESEARCH INTERESTS

Diversity, fossil record, and evolution of insects; fossilization in amber; systematics of Drosophilidae and other Diptera; evolution of sociality in insects; insect pollination and its evolutionary history; the evolution of biological communities, particularly tropical forests; extinction and environmental deterioration; history of science; biological illustration and imaging.

EDUCATION

B.Sc., 1979, University of Connecticut, Major concentrations in Biology and Fine Arts.

M.Sc., 1983, State University of New York, Binghamton. Evolutionary Biology.

Ph.D., 1986, Cornell University, Entomology.

POSITIONS

- 1986–1991: Assistant Curator, American Museum of Natural History.  
1988–present: Adjunct Professor, City University of New York.  
(Graduate Program in Ecology and Evolutionary Biology)  
1991–1996: Associate Curator (tenured), American Museum of Natural History.  
1994–1999: Chairman, Department of Entomology, American Museum of Natural History.  
1994–present: Adjunct Professor, Cornell University (Department of Entomology).  
1995–present: Adjunct Professor, Columbia University.  
(Department of Ecology, Evolution, and Environmental Biology).  
1996–present: Curator, American Museum of Natural History.  
2008–present: Professor, Gilder Graduate School, Program in Comparative Biology,  
American Museum of Natural History.

#### TEACHING AND MENTORING\*: last 10 years

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GRADUATE STUDENT COMMITTEES/MENTORING (Major Advisor):

Caroline S. Chaboo, Ph.D., 2005, Cornell University: Systematics of cassidine Chrysomelidae (tortoise beetles). Presently: Assistant Professor, University of Kansas.

Sara Lubkin, Ph.D., 2007, Cornell University: Systematics and paleontology of Paleozoic and Mesozoic Archostemata (Coleoptera).

Craig Gibbs, Ph.D., 2007, CUNY: Patterns of drosophilid fly species diversity and abundance in Neotropical forest canopies. Presently: Queens Zoo, WCS.

Torsten Dikow, Ph. D., 2007, Cornell University: Phylogeny of the robber flies (Diptera: Asilidae).  
Presently: Research Scientist, Smithsonian Institution.

Isabelle Vea, Ph.D., 2013: Phylogeny and fossil record of the archaeococcoid scale insects.  
Presently: Postdoctoral researcher, University of Edinburgh, Scotland UK.

Philip Barden, Ph.D. 2015: Phylogeny and fossil record of the basal lineages of ants. Postdoctoral researcher, Rutgers University.

**POSTDOCTORAL FELLOWS:**

Valerie Schawaroch, 2000–2004, AMNH: A monographic revision of the *Drosophila melanogaster* species group (NSF Fellow). Presently: Associate Professor, Baruch College, CUNY.

Enrique Penalver, 2004–2006, Univ. of Valencia, Spain: Paleobiology and paleoecology of the Miocene fossil community preserved in Dominican amber (Spanish government funded). Presently: Curator, Museo Geominero, Madrid.

Jessica Ware, 2008–2010: Species revision and phylogeny of the lower termites (NSF Fellow). Presently: Assistant Professor, Rutgers University.

Steven Ray Davis, 2014–2016: Transcriptome studies on the diversity and evolution of weevil rostrum (Gerstner Postdoctoral Fellow).

**COURSES TAUGHT:**

Columbia University, *Insect Diversity* (2001, 2003, 2005, 2007, 2014).

**AWARDS**


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2007 Thomas Say Award, Entomological Society of America, for distinguished contributions to insect systematics.

2015 Gilbert Harris Award, Paleontological Research Institution, for distinguished contributions to systematic paleontology.

**COLLECTION STEWARDSHIP**

Development of world's largest collection of amber fossils, through acquisitions and fieldwork, including 8,000 specimens of amber fossils from the Miocene of the Dominican Republic and Oligocene of Mexico; 3,000 specimens of Eocene amber from Baltic region and India; and 7,000 specimens from the Cretaceous of New Jersey, Lebanon, Burma (Myanmar).

Curation and research on 3,000 specimens of fossil insects from the Lower Cretaceous Crato Formation of Brazil, donated by Herbert Axelrod.

Development of largest and most diverse collection of Drosophilidae (Diptera) in the world, c. 400,000 specimens and 1,000 species, through fieldwork and acquisitions.

**INVITED LECTURES: last 7 years**


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15 invited lectures were given at various universities and conferences, in Asia, Australia, Europe, North America, and Africa.

**FIELDWORK and OTHER TRAVEL****Fieldwork on living insects:**

Arizona, Arkansas, California, Florida, Hawaii, Louisiana, Oregon, Texas, eastern U.S.; Brazil, Costa Rica, Dominican Republic, Ecuador, Fijian Islands, New Caledonia, Panama, Peru, South Africa, Tanzania, Venezuela, Vietnam, Virgin Islands.

**Fieldwork on fossil insects/amber deposits:**

Dominican Republic, India, USA: Alabama, Alaska, Arkansas, New Jersey, North Carolina, South Dakota, Washington state, Wyoming.

**Natural History Museums:**

Australia, Austria, Costa Rica, Denmark, England, France, Germany, Greece, Spain, Hungary, Italy, India, Russia, Scotland, Spain, The Netherlands, South Africa, Tanzania, United States.

## PUBLICATIONS

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1. Jaenike, J., S. Ausubel, and D.A. **Grimaldi**. 1982. On the evolution of clonal diversity in parthenogenetic earthworms. *Pedobiologia* 23(3–4): 304–310.
2. **Grimaldi**, D.A., and J. Jaenike. 1982. Laboratory culturing of mycophagous drosophilids. *Drosophila Information Service* 58: 156–157.
3. **Grimaldi**, D., and J. Jaenike. 1983. The Diptera breeding on skunk cabbage, *Symplocarpus foetidus* (Araceae). *Journal of the New York Entomological Society* 91(1): 83–89.
4. Jaenike, J., and D. **Grimaldi**. 1983. Genetic variation for host preference within and among populations of *Drosophila tripunctata*. *Evolution* 37(5): 1023–1033.
5. Jaenike, J., D.A. **Grimaldi**, A.E. Sluder, and A.L. Greenleaf. 1983. α-amanitin tolerance in mycophagous *Drosophila*. *Science* 221(4606): 165–167.
6. **Grimaldi**, D. 1984. Review of: Biological Diversification in the Tropics: Proceedings of the 5<sup>th</sup> International Symposium for the Association for Tropical Biology, G.T. Prance (ed.), Columbia Univ. Press, 714 pp. *Journal of the New York Entomological Society* 92(1): 94–96.
7. **Grimaldi**, D., and J. Jaenike. 1984. Competition in natural populations of mycophagous *Drosophila*. *Ecology* 65(4): 1113–1120.
8. **Grimaldi**, D. 1985. Niche separation and competitive coexistence in mycophagous *Drosophila* (Diptera: Drosophilidae). *Proceedings of the Entomological Society of Washington* 87(3): 498–511.
9. **Grimaldi**, D. 1985. Review of: Courtship Behaviors of the Hawaiian Picture-Winged *Drosophila*, by H.T. Spieth, 1984, Univ. Calif. Publ. Entomol. 103 (92 pp.). *Journal of the New York Entomological Society* 93(4): 1285–1287.
10. **Grimaldi**, D. 1986. The *Chymomyza aldrichi* species-group (Diptera: Drosophilidae): relationships, new Neotropical species, and the evolution of some sexual traits. *Journal of the New York Entomological Society* 94(3): 342–371.
11. **Grimaldi**, D. 1986. A new *Drosophila* (*Hirtodrosophila*) from Malaysia with broad-headed males (Diptera: Drosophilidae). *Journal of the New York Entomological Society* 94(3): 372–376.
12. **Grimaldi**, D., and B.A. Underwood. 1986. *Megabraula*, a new genus for two new species of Braulidae (Diptera), and a discussion of braulid evolution. *Systematic Entomology* 11(4): 427–438.
13. **Grimaldi**, D.A. 1987. Phylogenetics and taxonomy of *Zygothrica* (Diptera: Drosophilidae). *Bulletin of the American Museum of Natural History* 186: 103–268.
14. **Grimaldi**, D.A. 1987. Amber fossil Drosophilidae (Diptera), with particular reference to the hispaniolan taxa. *American Museum Novitates* 2880: 1–23.
15. **Grimaldi**, D.A. 1988. Relicts in the Drosophilidae (Diptera). In: Liebherr, J.K. (ed.), *Zoogeography of Caribbean Insects*: 183–213. Ithaca: Cornell University Press, ix+[i]+285 pp.
16. **Grimaldi**, D. 1988. Bee flies and bluets: *Bombylius* (Diptera: Bombyliidae) flower-constant on the distylous species, *Hedyotis caerulea* (Rubiaceae), and the manner of foraging. *Journal of Natural History* 22(1): 1–10.
17. **Grimaldi**, D. 1988. Review of: Manual of Nearctic Diptera, vol. 2. J.F. McAlpine (ed.) Research Branch Agriculture Canada Monogr. 28: 657 pp. *Journal of the New York Entomological Society* 96(1): 124–126.
18. **Grimaldi**, D. 1988. *Drosophila (Hirtodrosophila) chandleri* (Diptera: Drosophilidae) a new species from Sri Lanka with broad-headed males. *Journal of the New York Entomological Society* 96(3): 323–326.
19. Michener, C.D., and D.A. **Grimaldi**. 1988. A *Trigona* from Late Cretaceous amber of New Jersey (Hymenoptera: Apidae: Meliponinae). *American Museum Novitates* 2917: 1–10.
20. Michener, C.D., and D.A. **Grimaldi**. 1988. The oldest fossil bee: apoid history, evolutionary stasis, and antiquity of social behavior. *Proceedings of the National Academy of Sciences, U.S.A.* 85(17): 6424–6426.
21. **Grimaldi**, D. 1988. Still life with flowers: the discovery of the oldest fossil bee. *Natural History* 88(9): 86–89.

22. **Grimaldi**, D. 1989. The genus *Metopina* (Diptera: Phoridae) from Cretaceous and Tertiary ambers. *Journal of the New York Entomological Society* 97(1): 65–72.
23. **Grimaldi**, D., and G. Fenster. 1989. Evolution of extreme sexual dimorphisms: structural and behavioral convergence among broad-headed male Drosophilidae (Diptera). *American Museum Novitates* 2939: 1–25.
24. **Grimaldi**, D., C.W. Beck, and J.J. Boon. 1989. Occurrence, chemical characteristics, and paleontology of the fossil resins from New Jersey. *American Museum Novitates* 2948: 1–28.
25. **Grimaldi**, D. (ed.). 1990. Insects from the Santana Formation, Lower Cretaceous, of Brazil. *Bulletin of the American Museum of Natural History* 195: 1–191.
26. **Grimaldi**, D. 1990. Diptera. *Bulletin of the American Museum of Natural History* 195: 164–183.
27. **Grimaldi**, D. 1990. New distributional records of *Scaptomyza (Bunostoma) australis* from South Pacific islands and biogeographic implications. *Journal of the New York Entomological Society* 98(4): 484–488.
28. **Grimaldi**, D. 1990. A phylogenetic classification of the Drosophilidae. In: Országh, I. (ed.), *Second International Congress of Dipterology, August 27–September 1, 1990, Bratislava, Czechoslovakia: Abstract Volume*: 344. Bratislava: Comenius University, iii+324 pp.
29. **Grimaldi**, D. 1990. A phylogenetic, revised classification of genera in the Drosophilidae (Diptera). *Bulletin of the American Museum of Natural History* 197: 1–139.
30. **Grimaldi**, D. 1990. Revision of *Zygothrica* (Diptera: Drosophilidae), part II. The first African species, two new Indo-Pacific groups, and the *bilineata* and *samoensis* species groups. *American Museum Novitates* 2964: 1–31.
31. **Grimaldi**, D. 1990. Review of: *Zoologica Neocaledonica* (New Series), vol. I, by S. Tillier. *Journal of the New York Entomological Society* 98(1): 123–124.
32. Poinar, G.O., Jr., and D.A. **Grimaldi**. 1990. Fossil and extant macrochelid mites (Acari: Macrochelidae) phoretic on drosophilid flies (Diptera: Drosophilidae). *Journal of the New York Entomological Society* 98(1): 88–92.
33. **Grimaldi**, D. 1990. Review of: Manual of Nearctic Diptera, Vol. 3, Research Branch, Agriculture Canada, Monograph No. 32, by J.F. McAlpine, D.M. Wood. *Quarterly Review of Biology* 65(4): 513–514.
34. **Grimaldi**, D. 1991. Mycetobiine woodgnats (Diptera: Anisopodidae) from the Oligo-Miocene amber of the Dominican Republic, and Old World affinities. *American Museum Novitates* 3014: 1–24.
35. **Grimaldi**, D. 1991. *Drosophila canaryana* Takada and Yoon, 1989 (Diptera: Drosophilidae), a junior synonym of *Drosophila guanche* Monclús, 1976. *Entomological News* 102(5): 223–226.
36. **Grimaldi**, D. 1991. Cladistics and the classification of the Drosophilidae. In: Weismann, L., I. Országh, and A.C. Pont (eds.), *Proceedings of the Second International Congress of Dipterology*: 85–97. The Hague: SPB Academic Publishers, 367 pp.
37. **Grimaldi**, D. 1991. The Santana Formation insects. In: Maisey, J.G. (ed.), *Santana Fossils: An Illustrated Atlas*: 379–406. New Jersey: T.F.H. Publications, 459 pp.
38. DeSalle, R., and D.A. **Grimaldi**. 1991. Morphological and molecular systematics of the Drosophilidae. *Annual Review of Ecology and Systematics* 22: 447–475.
39. Heed, W.B., and D.A. **Grimaldi**. 1991. Revision of the morphocryptic, Caribbean *mayaguana* species subcluster in the *Drosophila repleta* group (Diptera: Drosophilidae). *American Museum Novitates* 2999: 1–15.
40. Krishna, K., and D. **Grimaldi**. 1991. A new fossil species from Dominican amber of the living Australian termite genus *Mastotermes* (Isoptera: Mastotermitidae). *American Museum Novitates* 3021: 1–10.
41. Shadrinsky, A.M., D. **Grimaldi**, T.P. Wampler, and N.S. Baer. 1991. Amber and copal: pyrolysis gas chromatographic (PyGC) studies of provenance. *Wiener Berichte über Naturwissenschaften in der Kunst* 6/7/8: 37–62.

42. **Grimaldi**, D. 1992. Systematics of the genus *Colocasiomyia* de Meijere (Diptera: Drosophilidae): cladistics, a new generic synonym, new records, and a new species from Nepal. *Entomologica Scandana* 22(4): 417–426.
43. **Grimaldi**, D. 1992. *Drosophila putrida* Sturtevant, 1916 (Insecta, Diptera): proposed replacement of the holotype by a neotype. *Bulletin of Zoological Nomenclature* 49(2): 129–132.
44. **Grimaldi**, D., and C. Young. 1992. Observations on the bizarre jelly mass habit of larval *Geranomyia* (Diptera: Tipulidae: Limoniidae). *Journal of the New York Entomological Society* 100(4): 634–637.
45. **Grimaldi**, D., A.C. James, and J. Jaenike. 1992. Systematics and modes of reproductive isolation in the Holarctic *Drosophila testacea* species group (Diptera: Drosophilidae). *Annals of the Entomological Society of America* 85(6): 671–685.
46. Grimaldi, D. 1992. Vicariance biogeography, geographic extinctions, and the North American Oligocene tsetse flies. In: Novacek, M.J., and Q.D. Wheeler (eds.), *Extinction and Phylogeny*: 178–204. New York: Columbia University Press, vi+253 pp.
47. DeSalle, R., and D. **Grimaldi**. 1992. Characters and the systematics of the Drosophilidae. *Journal of Heredity* 83(3): 182–188.
48. DeSalle, R., J. Gatesy, W. Wheeler, and D. **Grimaldi**. 1992. DNA sequences from a fossil termite in Oligo-Miocene amber and their phylogenetic implications. *Science* 257(5078): 1933–1936.
49. **Grimaldi**, D. 1992. Windows in time. Review of: Life in Amber, by G.O. Poinar, Jr. (Stanford Univ. Press). *Science* 258(5089): 1822.
50. **Grimaldi**, D. 1993. The care and study of fossiliferous amber. *Curator* 36(1): 31–49.
51. **Grimaldi**, D. 1993. Amber fossil Drosophilidae (Diptera), part II. Review of the genus *Hyalistata*, new status (Steganinae). *American Museum Novitates* 3084: 1–15.
52. **Grimaldi**, D.A., and W.N. Mathis. 1993. Fossil Periscelididae (Diptera). *Proceedings of the Entomological Society of Washington* 95(3): 383–403.
53. **Grimaldi**, D., C. Michalski, and K. Schmidt. 1993. Amber fossil Enicocephalidae (Heteroptera) from the Lower Cretaceous of Lebanon and Oligo-Miocene of the Dominican Republic, with biogeographic analysis of *Enicocephalus*. *American Museum Novitates* 3071: 1–30.
54. Kathirithamby, J., and D. **Grimaldi**. 1993. Remarkable stasis in some lower Tertiary parasitoids: descriptions, new records, and review of Strepsiptera in the Oligo-Miocene amber of the Dominican Republic. *Entomologica Scandinavica* 24(1): 31–41.
55. Shadrinsky, A.M., D.A. **Grimaldi**, J.J. Boon, and N.S. Baer. 1993. Application of pyrolysis-gas chromatography and pyrolysis-gas chromatography/mass spectrometry to the unmasking of amber forgeries. *Journal of Analytical and Applied Pyrolysis* 25: 77–95.
56. Yeates, D., and D. **Grimaldi**. 1993. A new *Metatrichia* window fly (Diptera: Scenopinidae) in Dominican amber, with a review of the systematics and biogeography of the genus. *American Museum Novitates* 3078: 1–8.
57. DeSalle, R., J. Gatesy, W. Wheeler, and D. **Grimaldi**. 1993. Working with fossil DNA from amber. *Discovery* [Yale University] 24: 19–24.
58. **Grimaldi**, D. 1993. Forever in amber. *Natural History* 93(6): 59–61.
59. DeSalle, R., and D. **Grimaldi**. 1993. Phylogenetic pattern and developmental process in *Drosophila*. *Systematic Biology* 42(4): 458–475.
60. **Grimaldi**, D. 1994. Description and immature stages of *Hirtodrosophila batracida* sp. n. (Diptera: Drosophilidae), a predator of frog embryos. *Entomologica Scandinavica* 25(2): 129–136.
61. **Grimaldi**, D., A. Shadrinsky, A. Ross, and N.S. Baer. 1994. Forgeries of fossils in “amber”: history, identification, and case studies. *Curator* 37(4): 251–274.
62. **Grimaldi**, D., E. Bonwich, M. Delannoy, and S. Doberstein. 1994. Electron microscopic studies of mummified tissues in amber fossils. *American Museum Novitates* 3097: 1–31.
63. **Grimaldi**, D., and R. DeSalle. 1994. The scientific romance with amber. In: Rosenberg, G.D., and D.L. Wolberg (eds.), *DinoFest: Proceedings of a Conference for the General Public, March 24–26,*

- 1994: 295–308. Knoxville: University of Tennessee Press [Paleontological Society Special Publication 7], 502 pp.
64. DeSalle, R., and D. **Grimaldi**. 1994. Very old DNA. *Current Opinion in Genetics and Development* 4(6): 810–815.
  65. **Grimaldi**, D. 1995. A remarkable new species of *Ogcodes* (Diptera: Acroceridae) in Dominican amber. *American Museum Novitates* 3127: 1–8.
  66. **Grimaldi**, D. 1995. The age of Dominican amber. In: Anderson, K.B., and J.C. Crelling (eds.), *Amber, Resinite, and Fossil Resins*: 203–217. Washington, D.C.: American Chemical Society, xvii+297 pp.
  67. **Grimaldi**, D., and G.R. Case. 1995. A feather in amber from the Upper Cretaceous of New Jersey. *American Museum Novitates* 3126: 1–6.
  68. **Grimaldi**, D., and D.S. Amorim. 1995. A basal new species of *Olbiogaster* (Diptera: Anisopodidae) in Dominican amber, and its systematic placement. *Proceedings of the Entomological Society of Washington* 97(3): 561–568.
  69. Hibbett, D.S., D. **Grimaldi**, and M.J. Donoghue. 1995. Cretaceous mushrooms in amber. *Nature* 377(6549): 487.
  70. MacPhee, R.D.E., and D.A. **Grimaldi**. 1996. Mammal bones in Dominican amber. *Nature* 380(6574): 489–490.
  71. Fraser, N.C., D.A. **Grimaldi**, P.E. Olsen, and B. Axsmith. 1996. A Triassic Lagerstätte from eastern North America. *Nature* 380(6575): 615–619.
  72. **Grimaldi**, D. 1996. Captured in amber. *Scientific American* 274(4): 70–77.
  73. **Grimaldi**, D. 1996. The ancient allure of amber. *Natural History* 105(2): 96–98.
  74. **Grimaldi**, D. 1996. *Amber: Window to the Past*. New York: Abrams/AMNH, 216 pp.
  75. **Grimaldi**, D. 1997. The bird flies, genus *Carnus*: species revision, generic relationships, and a fossil *Meoneura* in amber (Diptera: Carnidae). *American Museum Novitates* 3190: 1–30.
  76. **Grimaldi**, D. 1997. A fossil mantis (Insecta: Mantodea) in Cretaceous amber of New Jersey, with comments on the early history of the Dictyoptera. *American Museum Novitates* 3204: 1–11.
  77. Carpenter, J.M., and D.A. **Grimaldi**. 1997. Social wasps in amber. *American Museum Novitates* 3203: 1–7.
  78. **Grimaldi**, D., D. Agosti, and J.M. Carpenter. 1997. New and rediscovered primitive ants (Hymenoptera: Formicidae) in Cretaceous amber from New Jersey, and their phylogenetic relationships. *American Museum Novitates* 3208: 1–43.
  79. Hibbett, D.S., D. **Grimaldi**, and M.J. Donoghue. 1997. Fossil mushrooms from Miocene and Cretaceous ambers and the evolution of Homobasidiomycetes. *American Journal of Botany* 84(7): 981–991.
  80. Lewis, R.E., and D. **Grimaldi**. 1997. A pulicid flea in Miocene amber from the Dominican Republic (Insecta: Siphonaptera: Pulicidae). *American Museum Novitates* 3205: 1–9.
  81. **Grimaldi**, D. 1997. Amber: precious preserver of the past. *Pacific Discovery* [California Academy of Science] 50(1): 8–13.
  82. Agosti, D., D. **Grimaldi**, and J.M. Carpenter. 1998. Oldest known ant fossils discovered. *Nature* 391(6666): 447.
  83. **Grimaldi**, D. 1999. The co-radiations of pollinating insects and angiosperms in the Cretaceous. *Annals of the Missouri Botanical Garden* 86(2): 373–406.
  84. **Grimaldi**, D., and J. Cumming. 1999. Brachyceran Diptera in Cretaceous ambers and Mesozoic diversification of the Eremoneura. *Bulletin of the American Museum of Natural History* 239: 1–124.
  85. **Grimaldi**, D., and T. Nguyen. 1999. Monograph on the spittlebug flies, genus *Cladochaeta* (Diptera: Drosophilidae: Cladochaetini). *Bulletin of the American Museum of Natural History* 241: 1–326.
  86. Marshall, S.A., R. Langstaff, and D.A. **Grimaldi**. 1999. New species of Sphaeroceridae (Insecta, Diptera) in Dominican amber. *Studia Dipterologica* 6(2): 295–304.

87. Camargo, J.M.F., D.A. **Grimaldi**, and S.R.M. Pedro. 2000. The extinct fauna of stingless bees (Hymenoptera: Apidae: Meliponini) in Dominican amber: two new species and redescription of the male of *Proplebeia dominicana* (Wille and Chandler). *American Museum Novitates* 3293: 1–24.
88. Thorne, B.L., D.A. **Grimaldi**, and K. Krishna. 2000. Early fossil history of the termites. In: Abe, T., D.E. Bignell, and M. Higashi (eds.), *Termites: Evolution, Sociality, Symbioses, Ecology*: 77–93. Dordrecht: Kluwer Academic Publishers, 488 pp.
89. **Grimaldi**, D. (ed.). 2000. *Studies on Fossils in Amber, with Particular Reference to the Cretaceous of New Jersey*. Leiden: Backhuys Publishers, viii+498 pp.
90. **Grimaldi**, D., A. Shadrinsky, and T.P. Wampler. 2000. A remarkable deposit of fossiliferous amber from the Upper Cretaceous (Turonian) of New Jersey. In: Grimaldi, D. (ed.), *Studies on Fossils in Amber, with Particular Reference to the Cretaceous of New Jersey*: 1–76. Leiden: Backhuys Publishers, viii+498 pp.
91. **Grimaldi**, D., T. Nguyen, and R. Ketcham. 2000. Ultra-High-Resolution X-Ray Computed Tomography (UHR CT) and the study of fossils in amber. In: Grimaldi, D. (ed.), *Studies on Fossils in Amber, with Particular Reference to the Cretaceous of New Jersey*: 77–92. Leiden: Backhuys Publishers, viii+498 pp.
92. Bertolani, R., and D. **Grimaldi**. 2000. A new eutardigrade (Tardigrada: Milnesiidae) in amber from the Upper Cretaceous (Turonian) of New Jersey. In: Grimaldi, D. (ed.), *Studies on Fossils in Amber, with Particular Reference to the Cretaceous of New Jersey*: 103–110. Leiden: Backhuys Publishers, viii+498 pp.
93. Krishna, K., and D. **Grimaldi**. 2000. A new subfamily, genus, and species of termite (Isoptera) from New Jersey Cretaceous amber. In: Grimaldi, D. (ed.), *Studies on Fossils in Amber, with Particular Reference to the Cretaceous of New Jersey*: 133–140. Leiden: Backhuys Publishers, viii+498 pp.
94. **Grimaldi**, D. 2000. A diverse fauna of Neuropterodea in amber from the Cretaceous of New Jersey. In: Grimaldi, D. (ed.), *Studies on Fossils in Amber, with Particular Reference to the Cretaceous of New Jersey*: 259–304. Leiden: Backhuys Publishers, viii+498 pp.
95. Currie, D.C., and D. **Grimaldi**. 2000. A new black fly (Diptera: Simuliidae) genus from mid Cretaceous (Turonian) amber of New Jersey. In: Grimaldi, D. (ed.), *Studies on Fossils in Amber, with Particular Reference to the Cretaceous of New Jersey*: 473–486. Leiden: Backhuys Publishers, viii+498 pp.
96. Engel, M.S., and D. **Grimaldi**. 2000. A winged *Zorotypus* in Dominican amber (Insecta: Zoraptera), with discussion of relationships of and within the order. *Acta Geologica Hispanica* 35(1–2): 149–164. [special volume on fossil insects].
97. **Grimaldi**, D. 2000. Mesozoic radiations of the insects and origins of the modern fauna. In: Gazzoni, D.L. (ed.), *Proceedings of the XXI International Congress of Entomology, Foz do Iguaçu, Brazil, August 17–26, 2000: Abstracts Book 1*: xix–xxvii. Londrina: Embrapa, lxxiv+1288 pp. [vols. 1 and 2]. [plenary lecture].
98. **Grimaldi**, D., E. Quinter, and T. Nguyen. 2000. Fruit flies as ecological indicators: species diversity and abundance of Drosophilidae (Diptera) along an altitudinal transect in Parc National de Marojejy, Madagascar. *Fieldiana, Zoology* 97: 123–135.
99. Mathis, W.N., and D. **Grimaldi**. 2000. The first *Beckeriella* Williston from the Afrotropical Region Madagascar (Diptera: Ephydriidae): two new species from Madagascar. *Fieldiana, Zoology* 97: 105–113.
100. **Grimaldi**, D., J.A. Lillegraven, D. Bookwalter, T.P. Wampler, and A. Shadrinsky. 2000. Amber from Upper Cretaceous through Paleocene strata of the Hanna Basin, Wyoming, with evidence for source and taphonomy of fossil resins. *Rocky Mountain Geology* 35(2): 163–204.
101. Klompen, H., and D. **Grimaldi**. 2000. First Mesozoic record of the Parasitiformes: a larval argasid tick in Cretaceous amber (Acari: Ixodida: Argasidae). *Annals of the Entomological Society of America* 94(1): 10–15.

102. **Grimaldi**, D., and D. Agosti. 2000. A formicine in Cretaceous amber (Hymenoptera: Formicidae) and early evolution of the ants. *Proceedings of the National Academy of Sciences, U.S.A.* 97(25): 13678–13683.
103. **Grimaldi**, D. 2000. Review of: Poinar, G., Jr., and R. Poinar: The Amber Forest: A Reconstruction of a Vanished World (Princeton Univ. Press, 1999). *Quarterly Review of Biology* 75(4): 445–446.
104. **Grimaldi**, D., and D. Agosti. 2000. The oldest ants are Cretaceous, not Eocene: comment. *Canadian Entomologist* 132(5): 691–693.
105. **Grimaldi**, D., and V. Blagoderov. 2001. A new genus of Lygistorrhinidae from Viet Nam (Diptera: Mycetophiloidea) and phylogenetic relationships in the family. *Studia Dipterologica* 8(1): 43–57.
106. Heiss, E., and D. **Grimaldi**. 2002. *Archearakus burmensis* gen. n., sp. n., a remarkable Mesozoic Aradidae (Heteroptera) in Burmese amber. *Carolinaea* 59: 99–102.
107. Heiss, E., and D. **Grimaldi**. 2002. The first known female of *Archearakus burmensis* Heiss and Grimaldi, 2001 in Cretaceous Burmese amber (Heteroptera: Aradidae). *Zeitschrift der Arbeitsgemeinschaft Österreichischer Entomologen* 54: 55–59.
108. **Grimaldi**, D. 2001. Insect evolutionary history from Handlirsch to Hennig, and beyond. *Journal of Paleontology* 75(6): 1152–1160. [75<sup>th</sup> Anniversary issue, invited paper]
109. Anderson, N.M., and D. **Grimaldi**. 2001. A fossil water measurer from the mid-Cretaceous Burmese amber (Hemiptera: Gerromorpha: Hydrometridae). *Insect Systematics and Evolution* 32(4): 381–392.
110. Wier, A., M. Dolan, D. **Grimaldi**, R. Guerrero, J. Wagensberg, and L. Margulis. 2002. Microbial symbionts from 20 million-year-old *Mastotermes* termites. *Proceedings of the National Academy of Sciences, U.S.A.* 99(3): 1410–1413.
111. **Grimaldi**, D., M.S. Engel, and P. Nascimbene. 2002. Fossiliferous Cretaceous amber from Burma (Myanmar): its rediscovery, biotic diversity, and paleontological significance. *American Museum Novitates* 3361: 1–72.
112. Engel, M.S., and D.A. **Grimaldi**. 2002. The first Mesozoic Zoraptera (Insecta). *American Museum Novitates* 3362: 1–20.
113. **Grimaldi**, D. 2003. Fossil record. In: Resh, V.H., and R.T. Cardé (eds.), *Encyclopedia of Insects*: 455–463. New York: Academic Press, xxviii+[i]+1266 pp.
114. **Grimaldi**, D. 2003. Coevolution. In: Eldredge, N. (ed.), *Life on Earth: An Encyclopedia of Biodiversity, Ecology, and Evolution* [2 volumes]: 235–237. Santa Barbara: ABC-CLIO, 793 pp.
115. **Grimaldi**, D. 2003. Pollination. In: Eldredge, N. (ed.), *Life on Earth: An Encyclopedia of Biodiversity, Ecology, and Evolution* [2 volumes]: 574–577. Santa Barbara: ABC-CLIO, 793 pp.
116. **Grimaldi**, D. 2003. Terrestrial arthropods. In: Eldredge, N. (ed.), *Life on Earth: An Encyclopedia of Biodiversity, Ecology, and Evolution* [2 volumes]: 149–157. Santa Barbara: ABC-CLIO, 793 pp.
117. Krishna, K., and D. **Grimaldi**. 2003. The first Cretaceous Rhinotermitidae (Isoptera): a new species, genus, and subfamily in Burmese amber. *American Museum Novitates* 3390: 1–10.
118. **Grimaldi**, D., V. Blagoderov, and D.S. Amorim. 2002. The Mesozoic family Archizelmiridae (Diptera: Insecta). *Journal of Paleontology* 77(2): 368–382.
119. **Grimaldi**, D. 2003. A revision of Cretaceous mantises and their relationships, including new taxa (Insecta: Dictyoptera). *American Museum Novitates* 3412: 1–47.
120. **Grimaldi**, D. 2003. Review of: History of Insects, by A.P. Rasnitsyn, D.L.J. Quicke. *Quarterly Review of Biology* 78(3): 363–364.
121. **Grimaldi**, D., F. Ervik, and R. Bernal. 2003. Two new Neotropical genera of Drosophilidae (Diptera) visiting palm flowers. *Journal of the Kansas Entomological Society* 76(2): 109–124. [special issue for J.G. Rozen, Jr.].
122. **Grimaldi**, D. 2003. First amber fossils of the extinct family Protopsyllidiidae, and their phylogenetic significance among Hemiptera. *Insect Systematics and Evolution* 34(3): 329–344.
123. Fraser, N.C., and D.A. **Grimaldi**. 2003. Late Triassic continental faunal change: new perspectives on Triassic insect diversity as revealed by a locality in the Danville Basin,

- Virginia, Newark Supergroup. In: LeTourneau, PM., and P.E. Olsen (eds.), *The Great Rift Valleys of Pangea in Eastern North America, Volume 2: Sedimentology, Stratigraphy, and Paleontology*: 192–205. New York: Columbia University Press, 248 pp.
124. Engel, M.S., and D. **Grimaldi**. 2004. New light shed on the oldest insect. *Nature* 427(6975): 627–630.
  125. Engel, M.S., and D. **Grimaldi**. 2004. A new rock crawler in Baltic amber, with comments on the order (Mantophasmatodea: Mantophasmatidae). *American Museum Novitates* 3431: 1–11.
  126. Blagoderov, V., and D. **Grimaldi**. 2004. Fossil Sciaroidea (Diptera) in Cretaceous ambers, exclusive of Cecidomyidae, Sciaridae, and Keroplatidae. *American Museum Novitates* 3433: 1–76.
  127. Ross, A.J., and D. **Grimaldi**. 2004. *Raphidiomimula*, an enigmatic new cockroach in Cretaceous amber from Myanmar (Burma) (Insecta: Blattodea: Raphidiomimidae). *Journal of Systematic Palaeontology* 2(2): 101–104.
  128. **Grimaldi**, D., A. Shmakov, and N. Fraser. 2004. Mesozoic thrips and early evolution of the order Thysanoptera (Insecta). *Journal of Paleontology* 78(5): 941–952.
  129. Engel, M.S., and D.A. **Grimaldi**. 2004. A primitive earwig in Cretaceous amber from Myanmar (Dermaptera: Pygidicranidae). *Journal of Paleontology* 78(5): 1018–1023.
  130. Borkent, A., and D. **Grimaldi**. 2004. The earliest fossil mosquito (Diptera: Culicidae) in mid-Cretaceous Burmese amber. *Annals of the Entomological Society of America* 97(5): 882–888.
  131. Schawaroch, V., D. **Grimaldi**, and A. Klaus. 2005. Focusing on morphology: applications and implications of confocal laser scanning microscopy (Diptera: Campichoetidae, Camillidae, Drosophilidae). *Proceedings of the Entomological Society of Washington* 107(2): 323–335.
  132. Engel, M.S., and D.A. **Grimaldi**. 2004. The first Mesozoic stephanid wasp (Hymenoptera: Stephanidae). *Journal of Paleontology* 78(6): 1192–1197.
  133. **Grimaldi**, D. 2004. Drosophilidae. Invited submission for: *The Diptera of Costa Rica*. San José: Costa Rica.
  134. **Grimaldi**, D., and M.S. Engel. 2005. *Evolution of the Insects*. Cambridge: Cambridge University Press, xv+755 pp.
  135. Engel, M.S., and D. **Grimaldi**. 2005. Evolutionary implications of insect radiations and extinctions in the Cretaceous. In: Brothers, D., and M. Mostovski (eds.), *Programme and Abstracts: FossilsX3, 7–11 February 2005*: 18. Pretoria: Justin James, 60 pp.
  136. **Grimaldi**, D., J. Kathirithamby, and V. Schawaroch. 2005. Strepsiptera and triungula in Cretaceous amber. *Insect Systematics and Evolution* 36(1): 1–20.
  137. **Grimaldi**, D., J.-F. Zhang, A.P. Rasnitsyn, and N. Fraser. 2005. Revision of the bizarre Mesozoic scorpionflies in the Pseudopolycentropodidae (Mecopteroidea). *Insect Systematics and Evolution* 36(4): 443–458.
  138. Engel, M.S., and D. **Grimaldi**. 2005. Primitive new ants in Cretaceous amber from Myanmar, New Jersey, and Canada (Hymenoptera: Formicidae). *American Museum Novitates* 3485: 1–23.
  139. Peñalver, E., and D. **Grimaldi**. 2005. Assemblages of mammalian hair and blood-feeding midges (Insecta: Diptera: Psychodidae: Phlebotominae) in Miocene amber. *Transactions of the Royal Society of Edinburgh, Earth Sciences* 96(2): 177–195.
  140. **Grimaldi**, D., and M.S. Engel. 2006. Fossil Liposcelididae and the lice ages (Insecta: Psocodea). *Proceedings of the Royal Society of London, Series B, Biological Sciences* 273(1586): 625–633.
  141. Engel, M.S., and D.A. **Grimaldi**. 2006. The first Cretaceous sclerogibpid wasp (Hymenoptera: Sclerogibbidae). *American Museum Novitates* 3515: 1–7.
  142. Engel, M.S., and D.A. **Grimaldi**. 2006. The earliest webspinners (Insecta: Embioidea). *American Museum Novitates* 3514: 1–15.
  143. Amorim, D.S., and D.A. **Grimaldi**. 2006. Valeseguyidae, a new family of Diptera in the Scatopsoidea, with a new genus in Cretaceous amber from Myanmar. *Systematic Entomology* 31(3): 508–516.
  144. Engel, M.S., and D. **Grimaldi**. 2006. Cretaceous Scolebythidae (Hymenoptera) and phylogeny of the family. *American Museum Novitates* 3568: 1–21.

145. **Grimaldi**, D., and M.S. Engel. 2006. Extralimital fossils of the “Gondwanan” family Sphaeropsocidae (Psocodea). *American Museum Novitates* 3523: 1–18.
146. Peñalver, E., and D. **Grimaldi**. 2006. New data on Miocene butterflies in Dominican amber (Lepidoptera: Riodinidae and Nymphalidae) with the description of a new nymphalid. *American Museum Novitates* 3519: 1–17.
147. Peñalver, E., D. **Grimaldi**, and X. Delclòs. 2006. Early Cretaceous spider web with its prey. *Science* 312(5781): 1761.
148. Engel, M.S., and D.A. **Grimaldi**. 2006. The first Cretaceous spider wasp (Hymenoptera: Pompilidae). *Journal of the Kansas Entomological Society* 79(4): 359–368.
149. Engel, M.S., and D.A. **Grimaldi**. 2006. A diminutive pelecinid wasp in Cretaceous amber from New Jersey (Hymenoptera: Pelecinidae). *Northeastern Naturalist* 13(2): 291–297.
150. **Grimaldi**, D., and M.S. Engel. 2006. Rebuttal to George Poinar’s review of *Evolution of the Insects*. *American Scientist* [online].
151. Peñalver, E., M.S. Engel, and D. **Grimaldi**. 2006. Fig wasps (Hymenoptera: Agaonidae) in Miocene amber from the Dominican Republic. *American Museum Novitates* 3541: 1–16.
152. Blagoderov, V., D. **Grimaldi**, and N. Fraser. 2006. How time flies for flies: diverse Diptera (Insecta) from the Late Triassic of eastern North America. *American Museum Novitates* 3572: 1–39.
153. Lo, N., M.S. Engel, S. Cameron, C.A. Nalepa, G. Tokuda, D. **Grimaldi**, O. Kitade, K. Krishna, K.-D. Klass, K. Mackawa, T. Miura, and G.J. Thompson. 2007. Save Isoptera: a comment on Inward *et al.* *Biology Letters* 3(5): 562–563.
154. **Grimaldi**, D.A., and M.S. Engel. 2007. Why descriptive science still matters. *BioScience* 57(8): 646–647.
155. Liu, Z., M.S. Engel, and D. **Grimaldi**. 2007. Phylogeny and geological history of the cynipoid wasps (Hymenoptera: Cynipoidea). *American Museum Novitates* 3583: 1–48.
156. Engel, M.S., and D.A. **Grimaldi**. 2007. New false fairy wasps in Cretaceous amber from New Jersey and Myanmar (Hymenoptera: Mymarommatoidea). *Transactions of the Kansas Academy of Science* 110(3–4): 159–168.
157. Engel, M.S., and D.A. **Grimaldi**. 2007. The neuropterid fauna of Dominican and Mexican amber (Neuropterida: Megaloptera, Neuroptera). *American Museum Novitates* 3587: 1–58.
158. **Grimaldi**, D.A., and M.S. Engel. 2007. Overview and update of the mid-Cretaceous biota in Burmese amber. In: *Abstract Book: FossilsX3, 4–9 May 2007*: 26. Vitoria-Gasteiz: Diputación Foral de Álava, 275 pp.
159. Engel, M.S., D.A. **Grimaldi**, and K. Krishna. 2007. Primitive termites from the Early Cretaceous of Asia. *Stuttgarter Beiträge zur Naturkunde, Serie B, Geologie und Paläontologie* 371: 1–32.
160. Engel, M.S., D.A. **Grimaldi**, and K. Krishna. 2007. A synopsis of Baltic amber termites (Isoptera). *Stuttgarter Beiträge zur Naturkunde, Serie B, Geologie und Paläontologie* 372: 1–20.
161. **Grimaldi**, D.A. 2007. Mantodea: praying mantises. In: Martill, D.M., G. Bechly, and R.F. Loveridge (eds.), *The Crato Fossil Beds of Brazil: Window into an Ancient World*: 234–238. Cambridge: Cambridge University Press, xvi+625 pp.
162. Willkommen, J., and D.A. **Grimaldi**. 2007. Diptera: true flies, gnats, and crane flies. In: Martill, D.M., G. Bechly, and R.F. Loveridge (eds.), *The Crato Fossil Beds of Brazil: Window into an Ancient World*: 369–387. Cambridge: Cambridge University Press, xvi+625 pp.
163. **Grimaldi**, D.A., and M.S. Engel. 2008. An unusual, primitive Piesmatidae (Insecta: Heteroptera) in Cretaceous amber from Myanmar (Burma). *American Museum Novitates* 3611: 1–17.
164. **Grimaldi**, D.A. 2008. A stalk-eyed ephydroid fly from the Eocene (Diptera: Ephydriidae: Camillidae). *Proceedings of the Entomological Society of Washington* 110(3): 543–550.
165. **Grimaldi**, D., and D. Triplehorn. 2008. Insects from the Upper Miocene Grubstake Formation of Alaska. *American Museum Novitates* 3612: 1–19.
166. **Grimaldi**, D.A., and M.S. Engel. 2008. A termite bug in Early Miocene amber of the Dominican Republic (Heteroptera: Termitaphididae). *American Museum Novitates* 3619: 1–10.

167. Cognato, A.I., and D.A. **Grimaldi**. 2009. 100 million years of morphological stasis in bark beetles (Coleoptera: Curculionidae: Scolytinae). *Systematic Entomology* 34(1): 93–100.
168. **Grimaldi**, D.A., M.S. Engel, and K. Krishna. 2008. The species of termites (Insecta: Isoptera) from the Early Cretaceous Crato Formation: a revision. *American Museum Novitates* 3626: 1–30.
169. Engel, M.S., and D.A. **Grimaldi**. 2008. Diverse Neuropterida in Cretaceous amber, with particular reference to the paleofauna of Myanmar (Insecta). *Nova Supplementa Entomologica* 20: 1–86.
170. Engel, M.S., and D.A. **Grimaldi**. 2008. A jugular-horned beetle in Cretaceous amber from Myanmar (Coleoptera: Prostomidae). *Alavesia* 2: 215–218.
171. **Grimaldi**, D.A., and A. Arillo. 2008. The Tethepomyiidae, a new family of enigmatic Cretaceous Diptera. *Alavesia* 2: 259–265.
172. **Grimaldi**, D. 2009. Fossil record. In: Resh, V.H., and R.T. Cardé (eds.), *Encyclopedia of Insects* [2<sup>nd</sup> Edition]: 396–403. New York: Academic Press, xxxiii+[iii]+1132 pp.
173. Marshall, S.A., M. Buck, J.H. Skevington, and D. **Grimaldi**. 2009. A revision of the family Syringogastridae (Diptera: Diopsoidea). *Zootaxa* 1996: 1–80.
174. Engel, M.S., and D.A. **Grimaldi**. 2009. Diversity and phylogeny of the Mesozoic wasp family Stigmaphronidae (Hymenoptera: Ceraphronoidea). *Denisia* 26: 53–68.
175. Engel, M.S., D. **Grimaldi**, and K. Krishna. 2009. Termites: their phylogeny and rise to ecological dominance. *American Museum Novitates* 3650: 1–27.
176. **Grimaldi**, D.A., J.M. Cumming, and A. Arillo. 2009. The Chimeromyiidae, a new family of Eremoneura Diptera in amber from the Early Cretaceous. *Zootaxa* 2078: 34–54.
177. Bradley, T.J., A.D. Briscoe, S.G. Brady, H.L. Contreras, B.N. Danforth, R. Dudley, D. **Grimaldi**, J.F. Harrison, J.A. Kaiser, C. Merlin, S.M. Reppert, J.M. VandenBrooks, and S.P. Yanoviak. 2009. Episodes in insect evolution. *Integrative and Comparative Biology* 49(5): 590–606.
178. Krishna, K., and D. **Grimaldi**. 2009. Diverse Rhinotermitidae and Termitidae (Isoptera) in Dominican amber. *American Museum Novitates* 3640: 1–48.
179. **Grimaldi**, D. 2009: Did Disease Indeed Destroy the Dinosaurs? Review of: What Bugged the Dinosaurs? Death and Disease in the Cretaceous, by G.O. Poinar, Jr., and R. Poinar. Princeton Univ. Press (2008). *BioScience* 59(5): 446–447.
180. **Grimaldi**, D. 2009. Review of: Voyages of Discovery, A Visual Celebration of Ten of the Greatest Natural History Expeditions, by T. Rice. Buffalo, NY: Firefly. *Quarterly Review of Biology* 84(3): 279–281.
181. **Grimaldi**, D. 2009. Pushing back amber production. *Science* 326(5949): 51–52.
182. **Grimaldi**, D. 2009. The Asteioinea of Fiji (Insecta: Diptera: Periscelididae, Asteiidae, Xenasteiidae). *American Museum Novitates* 3671: 1–59.
183. **Grimaldi**, D. 2010. Review of: A Manual of Acarology, by G.W. Krantz, D.E. Walter. *Quarterly Review of Biology* 85(3): 372.
184. Chatzimanolis, S., M.S. Engel, A.F. Newton, and D.A. **Grimaldi**. 2010. New ant-like stone beetles in mid-Cretaceous amber from Myanmar (Coleoptera: Staphylinidae: Scydmaenidae). *Cretaceous Research* 31(1): 77–84.
185. Knight, T., P.S. Bingham, D.A. **Grimaldi**, K. Anderson, R.D. Lewis, and C.E. Savrda. 2010. A new Upper Cretaceous (Santonian) amber deposit from the Eutaw Formation of eastern Alabama, USA. *Cretaceous Research* 31(1): 85–93.
186. Ouvrard, D., D. Burckhardt, D. Azar, and D. **Grimaldi**. 2010. Non-jumping plant-lice in Cretaceous amber (Hemiptera: Sternorrhyncha: Psylloidea). *Systematic Entomology* 35(1): 172–180.
187. Peñalver, E., and D.A. **Grimaldi**. 2010. Latest occurrences of the Mesozoic family Elcanidae (Orthoptera) in Cretaceous amber from Myanmar and Spain. *Annales de la Société Entomologique de France* 46(1–2): 88–99.

188. Azar, D., M.S. Engel, and D.A. **Grimaldi**. 2010. A new genus and species of Sphaeropsocidae in Early Cretaceous amber from Lebanon. *Annales de la Société Entomologique de France* 46(1–2): 103–107.
189. **Grimaldi**, D., and M.S. Engel (eds.). 2010. *Fossil Record and Phylogeny of the Arthropoda*. Arthropod Structure and Development 39(2–3), 149 pp.
190. **Grimaldi**, D. 2010. 400 million years on six legs: on the origins and early evolution of the Hexapoda. *Arthropod Structure and Development* 39(2–3): 191–203.
191. Ware, J., D. **Grimaldi**, and M.S. Engel. 2010. The effects of fossil placement and calibration on divergence times and rates: an example from the termites (Insecta: Isoptera). *Arthropod Structure and Development* 39(2–3): 204–219.
192. **Grimaldi**, D.A., and P.C. Nascimbene. 2010. Raritan (New Jersey) amber. In: Penney, D. (ed.), *Fossiliferous Amber from the Major World Deposits*: 167–191. Manchester: Siri Scientific Press, 304 pp.
193. Pohl, H., B. Wipfler, D. **Grimaldi**, F. Beckman, and R.G. Beutel. 2010. Reconstructing the anatomy of the 42 million-year-old fossil *Mengea tertiaria* (Insecta, Strepsiptera). *Naturwissenschaften* 97(9): 855–859.
194. Endara, L., D.A. **Grimaldi**, and B.A. Roy. 2010. Lord of the flies: pollination of *Dracula* orchids. *Lankesteriana* 10(1): 1–11.
195. Rust, J., H. Singh, R.S. Rana, T. McCann, L. Singh, K. Anderson, N. Sarkar, P.C. Nascimbene, F. Gerdes, J.C. Thomas, M. Solórzano-Kraemer, C.J. Williams, M.S. Engel, A. Sahni, and D. **Grimaldi**. 2010. Biogeographic and evolutionary implications of a diverse paleobiota in amber from the Early Eocene of India. *Proceedings of the National Academy of Sciences, U.S.A.* 107(43): 18360–18365.
196. Wegeriek, P., and D.A. **Grimaldi**. 2010. A new subfamily of aphids (Hemiptera, Aphidomorpha) from the Early Cretaceous Lebanese amber, with a description of the oldest apterous morphs. *Acta Geologica Sinica* 84(4): 665–672.
197. Heinrichs, J., M.E. Reiner-Drehwald, K. Feldberg, D.A. **Grimaldi**, P.C. Nascimbene, M. von Konrat, and A.R. Schmidt. 2011. *Kaolakia borealis* nov. gen. et sp. (Porellales, Jungermanniopsida): a leafy liverwort from the Cretaceous of Alaska. *Review of Palaeobotany and Palynology* 165(3–4): 235–240.
198. Engel, M.S., D.A. **Grimaldi**, P.C. Nascimbene, and H. Singh. 2011. The termites (Insecta: Isoptera) in Early Eocene Cambay amber, with the earliest record of the Termitidae. *Zoobkeys* 148: 105–123. [special issue for K. Krishna].
199. Engel, M.S., D.A. **Grimaldi**, H. Singh, and P.C. Nascimbene. 2011. Webspinners (Insecta: Embioidea) in Early Eocene amber from western India (Insecta, Embioidea). *Zoobkeys* 148: 197–208. [special issue for K. Krishna].
200. **Grimaldi**, D., A. Arillo, J. Cumming, and M. Hauser. 2011. Brachyceran Diptera (Insecta) in Cretaceous ambers, part IV: significant new orthorrhaphous taxa. *Zoobkeys* 148: 293–332. [special issue for K. Krishna].
201. **Grimaldi**, D. 2011. Review of: Manual of Central American Diptera, by B.V. Brown, A. Borkent, J.M. Cumming, D.M. Wood, N.E. Woodley, M.A. Zumbado, S.A. Marshall. *Quarterly Review of Biology* 86(3): 235–236.
202. Engel, M.S., D.A. **Grimaldi**, and J. Ortega-Blanco. 2011. Serphitid wasps in Cretaceous amber from New Jersey (Hymenoptera: Serphitidae). *Insect Systematics and Evolution* 42(2): 197–204.
203. Wiegmann, B.M., M.D. Trautwein, I.S. Winkler, N.B. Barr, J.-W. Kim, C. Lambkin, M.A. Bertone, B.K. Cassel, K.M. Bayliss, A.M. Heimberg, B.M. Wheeland, K.J. Peterson, T. Pape, B.J. Sinclair, J.H. Skevington, V. Blagoderov, J. Caravas, S.N. Kutty, U. Schmidt-Ott, G.E. Kampmeier, F.C. Thompson, D.A. **Grimaldi**, A.T. Beckenbach, G.W. Courtney, M. Friedrich, R. Meier, D.K. Yeates, and D.M. Hillis. 2011. Episodic radiations in the fly tree of life. *Proceedings of the National Academy of Sciences, U.S.A.* 108(14): 5690–5695.

204. Bisulca, C., P.C. Nascimbene, L. Elkin, and **D. Grimaldi**. 2012. Variation in the deterioration of fossil resins and implications for the conservation of fossils in amber. *American Museum Novitates* 3734: 1–19.
205. **Grimaldi**, D., and H. Singh. 2012. The extinct genus *Pareuthyshaeta* in Eocene ambers (Diptera: Schizophora: Ephydroidea). *Canadian Entomologist* 144(1): 17–28.
206. Schmidt, A.R., S.R. Jancke, E. Ragazzi, G. Roghi, E.E. Lindquist, P.C. Nascimbene, K. Schmidt, T. Wappler, and D.A. **Grimaldi**. 2012. Arthropods in amber from the Triassic Period. *Proceedings of the National Academy of Sciences, U.S.A.* 109(37): 14796–14801.
207. Shi, G., D.A. **Grimaldi**, G.E. Harlow, J. Wang, J. Wang, M. Yang, W. Lei, Q. Li, and X. Li. 2012. Age constraint on Burmese amber based on U-Pb dating of zircons. *Cretaceous Research* 37: 155–163.
208. **Grimaldi**, D.A., and A.H. Kirk-Spriggs. 2012. Fossil Curtonotidae (Diptera: Schizophora: Ephydroidea). *American Museum Novitates* 3760: 1–16.
209. Chatzimanolis, S., D. **Grimaldi**, M.S. Engel, and N.C. Fraser. 2012. *Leehermania prorova*, the earliest staphyliniform beetle, from the Late Triassic of Virginia (Coleoptera: Staphylinidae). *American Museum Novitates* 3761: 1–28.
210. **Grimaldi**, D. 2012. Moses Harris: naturalist and artist. In: Baione, T. (ed.), *Natural Histories: Extraordinary Rare Book Selections from the American Museum of Natural History*: 48–51. New York: Sterling Publishing, xii+164 pp.
211. Vea, I.M., and D. **Grimaldi**. 2012. Phylogeny of ensign scale insects (Hemiptera: Coccoidea: Ortheziidae) based on the morphology of fossil and Recent females. *Systematic Entomology* 37(4): 758–783.
212. Barden, P., and D. **Grimaldi**. 2012. Rediscovery of the bizarre Cretaceous ant *Haidomyrmex* (Hymenoptera: Formicidae), including two new species. *American Museum Novitates* 3755: 1–16.
213. Krishna, K., D. **Grimaldi**, V. Krishna, and M.S. Engel. 2013. Treatise on the Isoptera of the world. *Bulletin of the American Museum of Natural History* 377: 1–2704, volumes 1–7.
214. Engel, M.S., D.A. **Grimaldi**, V.H. Gonzalez, I.A. Hinojosa-Díaz, and C.D. Michener. 2012. An exomalopsine bee in Early Miocene amber from the Dominican Republic (Hymenoptera: Apidae). *American Museum Novitates* 3758: 1–16.
215. **Grimaldi**, D.A., M.S. Engel, P.C. Nascimbene, and H. Singh. 2013. Coniopterygidae (Neuroptera: Aleuropteryginae) in amber from the Eocene of India and Miocene of Hispaniola. *American Museum Novitates* 3770: 1–20.
216. Engel, M.S., J. Ortega-Blanco, C. Soriano, D.A. **Grimaldi**, and X. Delclòs. 2013. A new lineage of enigmatic diaprioid wasps in Cretaceous amber (Hymenoptera: Diapriidae). *American Museum Novitates* 3771: 1–23.
217. **Grimaldi**, D.A., M.S. Engel, and H. Singh. 2013. Bugs in the biogeography: Leptosaldinae (Heteroptera: Leptopodidae) in amber from the Miocene of Hispaniola and Eocene of India. *Journal of the Kansas Entomological Society* 86(3): 226–243.
218. Engel, M.S., D.A. **Grimaldi**, and J. Ortega-Blanco. 2013. A stephanid wasp in mid-Cretaceous Burmese amber (Hymenoptera: Stephanidae), with comments on the antiquity of the Hymenoptera. *Journal of the Kansas Entomological Society* 86(3): 244–252.
219. **Grimaldi**, D.A., and M.S. Engel. 2013. The relict scorpionfly family Meropeidae (Mecoptera) in Cretaceous amber. *Journal of the Kansas Entomological Society* 86(3): 253–263.
220. Engel, M.S., D.A. **Grimaldi**, and J. Ortega-Blanco. 2013. *Zoropelecinus zigrasi*, a pelecinid wasp in mid-Cretaceous amber from Myanmar (Hymenoptera: Pelecinidae). *Noritales Paleoentomologicae* 4: 1–10.
221. Barden, P., and D.A. **Grimaldi**. 2013. A new genus of highly specialized ants in Cretaceous Burmese amber (Hymenoptera: Formicidae). *Zootaxa* 3681(4): 405–412.
222. Barden, P., and D. **Grimaldi**. 2014. A diverse ant fauna from the mid-Cretaceous of Myanmar (Hymenoptera: Formicidae). *PLoS ONE* 9(4): e93627. doi:10.1371/journal.pone.0093627.

223. **Grimaldi**, D., and M.A. Johnston. 2014. The long-tongued Cretaceous scorpionfly *Parapolycentropus* Grimaldi and Rasnitsyn (Mecoptera: Pseudopolycentropodidae): new data and interpretations. *American Museum Novitates* 3793: 1–23.
224. Dikow, T., and D.A. **Grimaldi**. 2014. Robber flies in Cretaceous ambers (Insecta: Diptera: Asilidae). *American Museum Novitates* 3799: 1–19.
225. Parker, J., and D.A. **Grimaldi**. 2014. Specialized myrmecophily at the ecological dawn of ants. *Current Biology* 24(20): 2428–2434.
226. Poppe, J.L., H.J. Schmitz, D. **Grimaldi**, and V.L.S. Valente. 2014. High diversity of Drosophilidae (Insecta, Diptera) in the Pampas biome of South America, with descriptions of new *Rhinoleucophenga* species. *Zootaxa* 3779(2): 215–245.
227. **Grimaldi**, D., P.S. Ginsberg, L. Thayer, S. McEvey, M. Hauser, M. Turelli, and B. Brown. 2015. Strange little flies in the big city: exotic flower-breeding Drosophilidae (Diptera) in urban Los Angeles. *PLoS ONE* 10(4): e0122575. doi: 10.1371/journal.pone.0122575.
228. Karremans, A.P., F. Pupulin, D. **Grimaldi**, K. Beentjes, R. Butot, G.E. Fassi, K. Jasper, J. Kruizinga, P. Roessing, E. Smets, and B. Gravendeel. 2015. Pollination of *Specklinia* by nectar feeding *Drosophila*: first reported case of a deceptive syndrome employing aggregation pheromones in Orchidaceae. *Annals of Botany* 116(3): 437–455.
229. Arillo, A., D.A. **Grimaldi**, E. Peñalver, R. Pérez-de la Fuente, X. Delclòs, J. Criscione, P. Barden, and M. Riccio. 2015. Long-proboscid brachyceran flies in Cretaceous amber (Diptera: Brachycera: Stratiomyomorpha: Zhangsolvidae). *Systematic Entomology* 40(1): 242–267.
230. Peñalver, E., A. Arillo, R. Pérez-de la Fuente, M.L. Riccio, X. Delclòs, E. Barrón, and D.A. **Grimaldi**. 2015. Long-proboscid flies as pollinators of Mesozoic gymnosperms. *Current Biology* 25(14): 1917–1923.
231. Vea, I., and D. **Grimaldi**. 2015. Diverse new scale insects (Hemiptera: Coccoidea) in amber from the Cretaceous and Eocene, with a phylogenetic framework for fossil Coccoidea. *American Museum Novitates* 3823: 1–80.
232. Burks, P.A., J.A. Heraty, J.D. Pinto, and D. **Grimaldi**. 2015. Small but not ephemeral: newly discovered species of Aphelinidae and Trichogrammatidae (Insecta: Hymenoptera: Chalcidoidea) from Eocene amber. *Systematic Entomology* 40(3): 592–605.
233. **Grimaldi**, D.A. 2015. Titian Ramsey Peale: America's first lepidopterist [Preface and captions for 217 plates of butterfly and caterpillar paintings]. In: Haltman, K., *The Butterflies of North America: Titian Peale's Lost Manuscript*: 9–11. New York: Abrams/AMNH, 256 pp.
234. Vea, I., and D. **Grimaldi**. 2016. Putting scales into evolutionary time: the divergence of major scale insect lineages (Insecta: Hemiptera: Coccoidea) predates the radiation of modern angiosperm hosts. *Scientific Reports* 6: 23487, pp. 1-11, + 22 pp. Supplementary online data. DOI:10.1038/srep23487.
235. Daza, J.D., E.L. Stanley, P. Wagner, A.M. Bauer, and D.A. **Grimaldi**. 2016. Mid-Cretaceous amber fossils illuminate the past diversity of tropical lizards. *Science Advances* 2016: e1501080 [4 March 2016], pp 1-8 + 11 pp supplementary online data.
236. Crepet, W.L., K.C. Nixon, D. **Grimaldi**, and M.L. Riccio. 2016. A mosaic lauralean flower from the Early Cretaceous of Myanmar. *American Journal of Botany* 103(2): 1-8. doi:10.3732/ajb.1500393.
237. Barden, P., and D. **Grimaldi**. 2016. Adaptive radiation in socially advanced stem-group ants from the Cretaceous. *Current Biology* 26: 1-7, + 28 pp. supplementary online data. [Cover article and companion to no. 238, below].
238. Engel, M.S., P. Barden, M.L. Riccio, and D. **Grimaldi**. 2016. Morphologically specialized castes of termites (Isoptera) and advanced sociality in the Early Cretaceous. *Current Biology* 26: 1-9, + 27 pp. supplementary online data. <http://dx.doi.org/10.1016/j.cub.2015.12.061>.
239. Borkent, A. and D. **Grimaldi**. 2016. The Cretaceous fossil *Burmaculex antiquus* confirmed as the earliest known lineage of mosquitoes (Diptera: Culicidae). *Zootaxa* 4079(2): 457-466.

240. **Grimaldi, D. A.** and P. Barden. 2016. The Mesozoic family Eremochaetidae (Diptera: Brachycera) in Burmese amber and relationships of the Archisargoidea. *American Museum Novitates* 3865: 1-29 pp.
241. **Grimaldi, D. A.** 2016. Diverse orthorrhaphan flies (Insecta: Diptera: Brachycera) in amber from the Cretaceous of Myanmar. Brachycera in Cretaceous amber, part VII. *Bulletin of the American Museum of Natural History* 408: 131 pp.
242. **Grimaldi, D.A.** 2016. Revision of the *Drosophila bromeliae* Species Group (Diptera: Drosophilidae): Central American, Caribbean, and Andean species. *American Museum Novitates* 3859: 1-55.
243. Miller, M. E., S. A. Marshall, and **D. A. Grimaldi**. 2016. A review of the species of *Drosophila* (Diptera: Drosophilidae) and genera of Drosophilidae of northeastern North America. *Canadian Journal of Arthropod Identification* (on line): doi:10.3752/cjai.2017.31
244. Amorim, D.S., C. M. D. Santos, F.-T. Krell, A. Dubois, S. S. Nihei, O.M.P. Oliveira, A. Pont, H. Song, V. K. Verdade, D. A. Fachin, B. Klassa, C. J. E. Lamas, S. S. Oliveira, C. J. B. De Carvalho, C. A. Mello-Patiu, E. Hajdu, M. S. Couri, V. C. Silva, R. S. Capalleri, R. L. Falaschi, R. M. Feitosa, L. Prendini, J. P. Pomba Jr., F. Fernandez, R. M. Rocha, John E. Lattke, U. Caramaschi, M. Duarte, A. C. Marques, R. E. Reis, O. Kurani, D. M. Takiya, M. Tavares, D. S. Fernandes, F. L. Franco, F. Cuezzo, D. Paulson, B. Guénard, B. C. Schlick-Steiner, W. Aarthofer, F. M. Steiner, B. L. Fisher, R. A. Johnson, T. D. Delsinne, D. A. Donoso, P. R. Mulieri, L. D. Patitucci, J. M. Carpenter, L. Herman & **D. A. Grimaldi**. 2016. Timeless standards for species delimitation. *Zootaxa* 4137 (1): 121-128.
245. Agrawal, S., D. **Grimaldi**, and J. Fox. 2017. Haltere morphology and campaniform sensilla arrangement across Diptera. *Arthropod Structure and Development* 46: 215-229.
246. Stebner, F., H. Singh, J. Rust, and D. **Grimaldi**. 2017. Lygistorrhinidae (Diptera: Bibionomorpha: Sciaroidea) in Early Eocene Cambay amber. *PeerJ* 5: e3313; doi 10.7717/peerj.3313
247. **Grimaldi**, D.A., and A. Ross. 2017. Extraordinary Lagerstätten in amber, with particular reference to the Cretaceous of Burma. pp. 287-342, In: Fraser, N.C, and H.-D. Sues (eds.), *Terrestrial Conservation Lagerstätten, Windows into the Evolution of Life on Land*. Edinburgh: Dunedin Press.
248. Fraser, N.C., D.A. **Grimaldi**, B.J. Axsmith, A.B. Heckert, C. Liutkus-Pierce, D. Smith, and A.C. Dooley, Jr. 2017. The Solite Quarry: a window into life by a Triassic lake margin. pp. 105-129, In: Fraser, N.C, and H.-D. Sues (eds.), *Terrestrial Conservation Lagerstätten, Windows into the Evolution of Life on Land*. Edinburgh: Dunedin Press.
249. Perrard, A., D. A. **Grimaldi**, and J. Carpenter. 2017. Early lineages of Vespidae (Hymenoptera) in Cretaceous amber. *Systematic Entomology* 42: 379-386, DOI:10.1111/syen.12222.
250. Criscione, J. and D. **Grimaldi**. 2017. The oldest predaceous water bugs (Insecta: Heteroptera: Belostomatidae), with implications for the paleolimnology of the Triassic Cow Branch Formation. *Journal of Paleontology* 91(6): 1166-1177, doi:10.1017/jpa.2017.48
251. Barden, P., H Herhold, D. A. **Grimaldi**. 2017. A new genus of hell ants (Hymenoptera: Formicidae: Haidomyrmicini) from the Cretaceous with a novel head structure. *Systematic Entomology* 42: 837-846.
252. Cerretti, P., J.O. Stireman, T. Pape, J.E. O'Hara, M.A.T. Marinho, K. Rognes, and D.A. **Grimaldi**. 2017. First fossil of an oestroid fly (Diptera: Calyptratae: Oestroidea) and the calibration of oestroid divergences. *PLOS One* 12(8): e0182101, <https://doi.org/10.1371/journal.pone.0182101>.
253. Peñalver, E., A. Arillo, X. Delclòs, D. Peris, **D. A. Grimaldi**, S. R. Anderson, P. C. Nascimbene, R. Pérez-de la Fuente. 2017. Ticks parasitised feathered dinosaurs as revealed by Cretaceous amber assemblages. *Nature Communications* 8: 1924. DOI: 10.1038/s41467-017-01550-z.
254. **Grimaldi, D. A.** 2018. *Hirtodrosophila* of North America (Diptera: Drosophilidae). *Bulletin of the American Museum of Natural History* 421: 1-75.

255. Borkent, A., B. V. Brown, P.H. Adler, D. S. Amorim, K. Barber, D. Bickel, S. Boucher, S. E. Brooks, J. Burger, Z.L. Burington, R. S. Capellari, D.N.R. Costa, J. M. Cumming, G. Curler, C. W. Dick, J.H. Epler, E. Fisher, S. D. Gaimari, J. Gelhaus, **D. A. Grimaldi**, J. Hash, M. Hauser, H. Hippa, S. Ibáñez-Bernal, M. Jaschhof, E. P. Kameneva, P.H. Kerr, V. Korneyev, C. A. Korytkowski, G-A. Kung, G. Mikalsen Kvifte, O. Lonsdale, S.A. Marshall, W.N. Mathis, V. Michelsen, S. Naglis, A.L. Norrbom, S. Paiero, T. Pape, A. Pereira-Colavite, M. Pollet, S. Rochefort, A. Rung, J.B. Runyon, J. Savage, V. C. Silva, B.J. Sinclair, J.H. Skevington, J.O. Stireman III, J. Swann, P. Vilkamaa, T. Wheeler, T. Whitworth, M. Wong, D. M. Wood, N. Woodley, T. Yau, T. J. Zavortink, M.A. Zumbado. 2018. Remarkable fly (Diptera) diversity in a patch of Costa Rican cloud forest: Why inventory is a vital science. *Zootaxa* 4402(1): 53-90 [DG contribution: Drosophilidae (250 species)].
256. Brown, B.V., A. Borkent, et al. (ibid.). 2018. First comprehensive inventory of a tropical site for a megadiverse group of insects, the true flies (Diptera). *Communications Biology* DOI:10.1038/s42003-018-0022-x (8 pp.)
257. Gandolfo, M.A., K. C. Nixon, W. L. Crepet, and **D. A. Grimaldi**. 2018. A Late Cretaceous fagalean inflorescence preserved in amber from New Jersey. *American Journal of Botany* 105(7): 1-12. DOI:10.1002/ajb2.1103.
258. **Grimaldi, D.A.**, D. Sunderlin, G. A. Aaroe, M.R. Dempsky, N.E. Parker, G.Q. Tillery, P. Barden, J.G. White, P.C. Nascimbene, and C.J. Williams. 2018. Biological inclusions in amber from the Paleogene Chickaloon Formation, Alaska. *American Museum Novitates* 3908: 1-37.
259. **Grimaldi, D.A.** 2018. First tropical American species of the "relict" genus *Litoleptis*, and relationships in Spaniinae (Diptera: Rhagionidae). *American Museum Novitates* 3909: 1-18.
260. Policha, T., **D. Grimaldi**, R. Manobanda, A. Troya, A. Ludden, B.T.M. Dentinger, B.A. Roy. 2018. Do *Dracula* orchids exploit guilds of fungus visiting flies? New perspectives on a mushroom-mimic. *Ecological Entomology*, in press.
261. McEvey, S.F. and **D. A. Grimaldi**. 2018. Drosophilidae, In: Kirk-Spriggs, A.S. (ed.), *Manual of Afrotropical Diptera, volume 3*. in press.
262. **Grimaldi, D.A.** 2018. Basal Cyclorrhapha in amber from the Cretaceous and Tertiary (Diptera: Brachycera), and their relationships. Brachycera in Cretaceous Amber Part IX. *Bulletin of the American Museum of Natural History* 423: 97 pp.
263. **Grimaldi, D.A.** 2018. *Drosophila bromeliae* Sturtevant, another tropical drosophilid in temperate North America. *Fly Times* 61: 2-8.
264. H.W. Herhold, S.R. Davis, C.S. Smith, M.S. Engel, and **D.A. Grimaldi**. 2019. Unique metasomal musculature in sweat bees (Hymenoptera: Apoidea: Halictidae) revealed by micro-CT scanning. *American Museum Novitates*, in press.