

DAVID A. GRIMALDI
CURATOR
DIVISION OF INVERTEBRATE ZOOLOGY
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HIGHEST DEGREE EARNED

Ph.D.

AREA OF SPECIALIZATION

Entomology, fossil amber and insects

EDUCATIONAL EXPERIENCE

B. Sc. University of Connecticut, 1979

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

Ph.D. in Entomology, Cornell University, 1986

PREVIOUS EXPERIENCE IN DOCTORAL EDUCATION

TEACHING

Adjunct Professor, City University of New York (Graduate Program in Ecology and Evolutionary Biology), 1988-present

Adjunct Professor, Cornell University (Department of Entomology), 1994-present

Adjunct Professor, Columbia University (Department of Ecology, Evolution, and Environmental Biology), 1995-present

CLASSES

Graduate Course (present)

2 Graduate Classes (present)

City University of New York (CUNY), *Evolution and Systematics of Insects and Arachnids* (1991, 1995, 2004)

Cornell University, *Insect Systematics* (1993)

Columbia University, *Insect Diversity* (1998, 2000, 2001, 2003)

MASTER'S DEGREE COMMITTEES

Jeffrey Cook, Rutgers (1994)

Julian Stark, CUNY (1995)

DOCTORAL ADVISEES

Sara Lubkin, Cornell (present)

Craig Gibbs, CUNY (present)

Torsten Dikow, Cornell (present)

DOCTORAL DISSERTATION COMMITTEES

Saskia Waters, Univ. Witwatersrand, as outside examiner (1992)

Rudolf Meier, Cornell (1997)

Amy Berkov, CUNY (1998)
Rick Baker, Yale (1999)
Valerie Schawaroch, CUNY (2000)
Celeste Durando, CUNY (2000)
Djunijanti Peggie, Cornell (2001)
Caroline Chaboo, Cornell (presently)
Sara Lubkin, Cornell (present)
Craig Gibbs, CUNY (present)
Torsten Dikow, Cornell (present)

POST-DOCTORAL STUDENTS

David Yeates (1992-1994)
Rudolf Meier (1996-1997)
Frank Röschmann (1997-1998)
Vladimir Blagoderov (1999-2001)
Valerie Schawaroch (2000-present)
Enrique Penalver (2004-2006)

RESEARCH

RESEARCH INTERESTS

Diversity, fossil record, and evolution of insects; fossilization in amber; *Drosophila* and the nature of species; biological communities; extinction and environmental deterioration.

COLLECTION STEWARDSHIP

Development of large 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; 900 specimens of Eocene Baltic amber; and approximately 4000 specimens from the Cretaceous of New Jersey, Lebanon, and Burma (Myanmar).

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

Databasing (text and image) of amber and Santana Formation collections.

Development of largest and most diverse collection of Drosophilidae (Diptera) in the world, c. 300,000 specimens and 2,000 species, through field work and acquisitions.

FIELDWORK

Consists of biodiversity surveys, work at other museums, field work on Diptera, and prospecting and excavations of amber.

Poland

Peru, 1984

Panama, 1985, 1988, 1999

Washington, D.C., 1985-present

Venezuela, 1989, 1991, 1993

Costa Rica, 1989, 1991, 1993, 1995, 1999

Virgin Islands (British and U.S.), 1990, 1992, 1993

Dominican Republic, 1990, 1991, 1992, 1995
Arizona, 1990-2000
England, 1990, 1995, 1999, 2000, 2002
Eastern United States, 1990- present
Arkansas, 1992
New Jersey, 1992-1998
Washington state, 1994
Germany, 1994, 1996
Tanzania, 1995
The Netherlands, 1995
Russia, 1995, 2002
Italy, 1995-2000
Florida, 1995-2000
Austria, 1996
Hungary, 1996
French Guiana, 1997
Wyoming, 1997-1999
Denmark, 1998
Vietnam, 1998-2000
Alaska, 1998, 2001
Brazil, 2000
Republic of South Africa, 2005

RESEARCH GRANT SUPPORT

NON-FEDERAL FUNDING

Private Donations from Mr. Robert G. Goelet, Dr. Herbert Axelrod, and others
National Geographic Society
Recent application to the Rolex Awards

PUBLICATIONS

- Engel, M.S. and D. Grimaldi. (In press). Primitive new ants in Cretaceous amber from Myanmar, New Jersey, and Canada. *American Museum Novitates*.
- Grimaldi, D., A. Rasnitsyn, and N. Fraser. (In press). New and revised scorpionflies of the extinct family Pseudopolycentropodidae (Mecoptera), including two mosquito-like species in Cretaceous amber. *Insect Systematics and Evolution*.
- Grimaldi, D. (In press). Drosophilidae. Invited submission for: *The Diptera of Costa Rica*. San José, Costa Rica: INBio.
- Blagoderov, V., D.A. Grimaldi, and N. Fraser. 2007. How time flies for flies: Diverse Diptera (Insecta) from the Late Triassic of eastern North America. *American Museum Novitates* X: 1-39.
- Engel, M.S. and D.A. Grimaldi. 2007. Cretaceous Scolebythidae and phylogeny of the family (Hymenoptera: Chrysidoidea). *American Museum Novitates* 3568: 1-16.
- Amorim, D. S. and D. Grimaldi. 2006. Valeseguyidae, a new family in the Scatopsoidea (Diptera), including a new genus in Cretaceous amber. Manuscript submitted to: *Systematic Entomology*.

- Amorim, D. S. and D. Grimaldi. 2006. Valeseguyidae, a new family of Diptera in the Scatopsoidea, with a new genus in Cretaceous amber from Myanmar. *Systematic Entomology* 29: 1-9.
- Engel, M.S., and D.A. Grimaldi. 2006. A diminutive peleciniid wasp in Cretaceous amber from New Jersey (Hymenoptera: Peleciniidae). *Northeastern Naturalist* 13: 291-297.
- Engel, M.S., and D.A. Grimaldi. 2006. The first Cretaceous spider wasp (Hymenoptera: Pompilidae). *Journal of the Kansas Entomological Society* 79: 359-368.
- Grimaldi, D.A., and M.S. Engel. 2006. Extralimital fossils of the Gondwanan family Sphaeropsocidae (Psocodea). *American Museum Novitates* 3523: 1-18.
- Peñalver, E., and D.A. 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.
- Peñalver, E., D.A. Grimaldi, and X. Delclòs. 2006. Early Cretaceous spider web with its prey. *Science* 312: 1761.
- Peñalver, E., M.S. Engel, and D.A. Grimaldi. 2006. Fig wasps (Hymenoptera: Agaonidae) in Miocene amber from the Dominican Republic. *American Museum Novitates* 3541: 1-16.
- Grimaldi, D., J. Kathirithamby, and V. Schawaroch. 2005. Strepsiptera and triungula in Cretaceous amber. *Insect Systematics and Evolution* 36: 1-20.
- Peñalver Molla, E. and D. Grimaldi. 2005. Miocene assemblages of blood-feeding midges and their mammalian hosts (Insecta: Diptera: Psychodidae: Phlebotominae). Manuscript submitted to: *Transactions of the Royal Society of Edinburgh (Earth Sciences)*.
- Engel, M.S. and D. Grimaldi. 2004. New light shed on the oldest insect. *Nature* 427: 627-630.
- 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: 11 pp.
- Blagoderov, V. and D. Grimaldi. 2004. Fossil Sciaroidea (Diptera) in Cretaceous ambers, exclusive of Cecidomyiidae, Sciaridae, and Keroplatidae. *American Museum Novitates* 3433: 76 pp.
- Ross, A.J., and D. Grimaldi. 2004. *Raphidiomimula*, an enigmatic new cockroach in Cretaceous amber from Myanmar (Burma) (Insecta: Blattodea: Raphidiomimidae). *Systematic Palaeontology* 2: 101-104.
- Engel, M.S. and D.A. Grimaldi. 2004. A primitive earwig in Cretaceous amber from Myanmar (Dermaptera: Pygidicranidae). *Journal of Paleontology* 78: 1018-1023.
- Grimaldi, D., A. Shmakov, and N. Fraser. Mesozoic thrips and early evolution of the order Thysanoptera (Insecta). *Journal of Paleontology* 78: 941-952.
- 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: 882-888.
- Schawaroch, V. and D. Grimaldi. 2004. Focusing on morphology: applications and implications of confocal laser scanning microscopy (Diptera: Campichoetidae, Camillidae, Drosophilidae). *Proceedings of the Entomological Society of Washington* 107: 323-335.

- Engel, M.S., and D. A. Grimaldi. 2004. The first Mesozoic stephanid wasp (Hymenoptera: Stephanidae). *Journal of Paleontology* 78: 1192-1197.
- Grimaldi, D. 2003. "Coevolution" (pgs. 235-237), "Pollination" (pgs. 574-577), and "Terrestrial Arthropods" (pgs. 149-157), in *Life on Earth: An Encyclopedia of Biodiversity, Ecology, and Evolution*. Santa Barbara: ABC CLIO.
- Krishna, K., and D. Grimaldi. 2003. The first Cretaceous Rhinotermitidae (Isoptera): A new species, genus, and subfamily in Burmese amber. *American Museum Novitates* 3390: 10 pp.
- Grimaldi, D., V. Blagoderov, and D.S.Amorim. 2002. The Mesozoic family Archizelmiridae (Diptera). *Journal of Paleontology* 77: 368-382.
- Grimaldi, D. 2003. A revision of Cretaceous mantises and their relationships, including new taxa (Insecta: Dictyoptera). *American Museum Novitates* 3412: 1-47.
- 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: 109-124 [Festschrift volume in honor of Jerome G. Rozen].
- Grimaldi, D. 2003. First amber fossils of the extinct family Protopsyllidiidae, and their phylogenetic significance among Hemiptera. *Insect Systematics and Evolution* 34: 329-344.
- Anderson, N.M. and D. Grimaldi. 2002. A fossil water measurer from the mid-Cretaceous Burmese amber (Hemiptera: Gerromorpha: Hydrometridae). *Insect Systematics and Evolution* 32: 381-392.
- Engel, M. and D. Grimaldi. 2002. The first Mesozoic Zoraptera (Insecta). *Amer. Mus. Novitates* 3362: 20 pp. Wier, A., M. Dolan, D. Grimaldi, R. Guerrero, J. Wagensberg, and L. Margulis. 2002. Microbial symbionts from 20 million-year-old *Mastotermes* termites. *Proc. Nat. Acad. Sci., USA* 99: 1410-1413.
- Grimaldi, D., M.S. Engel, and P. Nascimbene. 2002. Fossiliferous Cretaceous amber from Burma (Myanmar): its rediscovery, biotic diversity, and paleontological significance. *Amer. Mus. Novitates* 3361: 71 pp.
- Heiss, E. and D. Grimaldi. 2002. *Archeoradus burmensis* gen.n., sp. n., a remarkable Mesozoic Aradidae (Heteroptera) in Burmese amber. *Carolina* 59: 99-102.
- Heiss, E. and D. Grimaldi. 2002. The first known female of *Archeoradus burmensis*.
- 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: 43-57.
- Grimaldi, D. 2001. Insect evolutionary history from Handlirsch to Hennig, and beyond. (75 yr. anniversary issue invited paper) *J. Paleont.* 75: 1152-1160.
- Heiss and Grimaldi, 2001 in Cretaceous Burmese amber (Heteroptera: Aradidae). *Zeit. Arb. Gem. Öst. Ent.* 54: 55-59.