

Curriculum Vitae Lorenzo Prendini

Date and Place of Birth

6 April 1974, Johannesburg, South Africa

Marital Status

Married to Elizabeth Prendini née Scott

Nationality

South African, Italian

Education

Ph.D., Zoology, University of Cape Town, South Africa (2001)

B.Sc. (Hons), Zoology, University of Cape Town, South Africa, (1995)

B.Sc., Botany & Zoology, University of the Witwatersrand, Johannesburg, South Africa (1994)

Appointments

Assistant Curator, Division of Invertebrate Zoology, AMNH (2002–)

Adjunct Appointments

Adjunct Professor, Department of Entomology, Cornell University (2004–)

Research Associate, Transvaal Museum of Natural History, Pretoria, South Africa (2004–)

Adjunct Professor, Department of Biology, CUNY (2003–)

Editorial Positions

Associate Editor, *ZOOTAXA* (2005–)

Associate Editor, *Cladistics* (2004–)

Associate Editor, *Journal of Afrotropical Zoology* (2004–)

Professional Affiliations

African Arachnological Society; American Arachnological Society; Entomological Society of Southern Africa; The Explorer's Club (Fellow); International Society of Arachnology (formerly CIDA); Society of Systematic Biologists; South African Society of Systematic Biology; Willi Hennig Society (Fellow); Zoological Society of Southern Africa.

Scientific Publications

Journal Articles:

Prendini, L., Theron, L.-J., Van der Merwe, K. and Owen-Smith, N. 1996. Abundance and guild structure of grasshoppers (Orthoptera: Acridoidea) in communally grazed and protected savanna. *South African Journal of Zoology* **31**(3): 120–130.

Prendini, L. 1997. Two new host-restricted restioid leafhoppers in the genus *Cephalelus* (Cicadellidae: Cephalelini), with descriptions of the females of *C. brevipilus* Davies, *C. daviesi* Davies and *C. rawsonia* Davies. *African Entomology* **5**(2): 273–281.

Newlands, G. and **Prendini, L.** 1997. Redescription of *Hadogenes zumpti* (Scorpiones: Ischnuridae), an unusual rock scorpion from the Richtersveld, South Africa. *South African Journal of Zoology* **32**(3): 76–81.

Prendini, L. and Linder, H.P. 1998. Phylogeny of the South African species of restioid leafhoppers (Cicadellidae, Cephalelini). *Entomologica Scandinavica* **29**: 11–18.

Prendini, L. 2000. Phylogeny and classification of the superfamily Scorpionoidea Latreille 1802 (Chelicerata, Scorpiones): An exemplar approach. *Cladistics* **16**(1): 1–78. (cover article)

Prendini, L. 2000. A new species of *Parabuthus* Pocock (Scorpiones, Buthidae), and new records of *Parabuthus capensis* (Ehrenberg), from Namibia and South Africa. *Cimbebasia* **16**: 201–214.

- Prendini, L.** 2001. A review of synonyms and subspecies in the genus *Opisthophthalmus* C.L. Koch (Scorpiones: Scorpionidae). *African Entomology* **9**(1): 17–48.
- Prendini, L.** 2001. Phylogeny of *Parabuthus* (Scorpiones, Buthidae). *Zoologica Scripta* **30**(1): 13–35.
- Prendini, L.** 2001. Species or supraspecific taxa as terminals in cladistic analysis? Groundplans versus exemplars revisited. *Systematic Biology* **50**(2): 290–300.
- Prendini, L.** 2001. Two new species of *Hadogenes* (Scorpiones, Ischnuridae) from South Africa, with a redescription of *Hadogenes bicolor* and a discussion on the phylogenetic position of *Hadogenes*. *Journal of Arachnology* **29**(2): 146–172.
- Prendini, L.** 2001. Further additions to the scorpion fauna of Trinidad and Tobago. *Journal of Arachnology* **29**(2): 173–188.
- Dyason, K., Brandt, W., **Prendini, L.**, Verdonck, F., Tytgat, J., Du Plessis, J., Müller, G. and Van der Walt, J. 2002. Determination of species-specific components in the venom of *Parabuthus* scorpions from southern Africa using matrix-assisted laser desorption time-of-flight mass spectrometry. *Rapid Communications in Mass Spectrometry* **16**: 768–773.
- Prendini, L.** 2003. A new genus and species of bothriurid scorpion from the Brandberg Massif, Namibia, with a reanalysis of bothriurid phylogeny and a discussion of the phylogenetic position of *Lisposoma* Lawrence. *Systematic Entomology* **28**(2): 149–172.
- Prendini, L.**, Crowe, T.M. and Wheeler, W.C. 2003. Systematics and biogeography of the family Scorpionidae Latreille, with a discussion of phylogenetic methods. *Invertebrate Systematics* **17**(2): 185–259. (cover article)
- Prendini, L.** 2003. Discovery of the male of *Parabuthus muelleri*, and implications for the phylogeny of *Parabuthus* (Scorpiones: Buthidae). *American Museum Novitates* **3408**: 1–24.
- Prendini, L.** 2003. Revision of the genus *Lisposoma* Lawrence, 1928 (Scorpiones: Bothriuridae). *Insect Systematics and Evolution* **34**: 241–264.
- Prendini, L.** 2004. Systematics of the genus *Pseudolychas* Kraepelin (Scorpiones: Buthidae). *Annals of the Entomological Society of America* **97**(1): 37–63.
- Prendini, L.** 2004. The systematics of southern African *Parabuthus* Pocock (Scorpiones, Buthidae): Revisions to the taxonomy and key to the species. *Journal of Arachnology* **32**(1): 109–186.
- Druce, D., Hamer, M., Slotow, R. and **Prendini, L.** 2004. Checklist of millipedes (Diplopoda), centipedes (Chilopoda) and scorpions (Arachnida: Scorpionida) from a savanna ecosystem, Limpopo Province, South Africa. *African Invertebrates* **45**: 315–322.
- Prendini, L.** 2005. Revision of *Karasbergia* Hewitt (Scorpiones: Buthidae), a monotypic genus endemic to southern Africa. *Journal of Afrotropical Zoology* **1**: 77–93.
- Prendini, L.** 2005. Comment on “Identifying spiders through DNA barcodes”. *Canadian Journal of Zoology* **83**(3): 481–491.
- Prendini, L.** 2005. On *Hadogenes angolensis* Lourenço, 1999 syn. n. (Scorpiones, Liochelidae), with a redescription of *H. taeniurus* (Thorell, 1876). *Revue suisse de Zoologie* **112**(2): 1–28.
- Prendini, L.**, Weygoldt, P. and Wheeler, W.C. 2005. Systematics of the *Damon variegatus* group of African whip spiders (Chelicerata: Amblypygi): Evidence from behaviour, morphology and DNA. *Organisms, Diversity and Evolution* **5**: 203–236. (cover article)
- Prendini, L.** 2005. New records and observations on the natural history of *Lisposoma elegans* and *Lisposoma josehermana* (Scorpiones: Bothriuridae). *American Museum Novitates* **3487**: 1–11.
- Prendini, L.** and Wheeler, W.C. 2005. Scorpion higher phylogeny and classification, taxonomic anarchy, and standards for peer review in online publishing. *Cladistics* **21**(5): 446–494.
- Prendini, L.** 2006. New South African flat rock scorpions (Liochelidae: *Hadogenes*). *American Museum Novitates* **3502**: 1–32.

Book Chapters:

- Prendini, L.** 2000. Chelicerata (Scorpiones). In: Kirk-Spriggs, A.H. and Marais, E. (Eds.) *Dâures – Biodiversity of the Brandberg Massif, Namibia. Cimbebasia Memoir* **9**: 109–120.
- Prendini, L.** 2001. Substratum specialization and speciation in southern African scorpions: the Effect Hypothesis revisited. Pp. 113–138 In: Fet, V. and Selden, P.A. (Eds.) *Scorpions 2001. In Memoriam Gary A. Polis*. British Arachnological Society, Burnham Beeches, Bucks, UK.
- Prendini, L.**, Hanner, R. and DeSalle, R. 2002. Obtaining, storing and archiving specimens and tissue samples for use in molecular studies. Pp. 176–248 In: DeSalle, R., Giribet, G. and Wheeler, W.C. (Eds.) *Methods and Tools in Biosciences and Medicine. Techniques in Molecular Evolution and Systematics*. Birkhäuser Verlag AG, Basel.
- Nishiguchi, M.K., Doukakis, P., Egan, M., Goldstein, P.Z., Kizirian, D., Phillips, A., **Prendini, L.**, Rosenbaum, H.C., Torres, E., Wyner, Y., DeSalle, R. & Giribet, G. 2002. DNA isolation procedures. Pp. 249–287 In: DeSalle, R., Giribet, G. and Wheeler, W.C. (Eds.) *Methods and Tools in Biosciences and Medicine. Techniques in Molecular Evolution and Systematics*. Birkhäuser Verlag AG, Basel.
- Prendini, L.** 2004. On the scorpions of Gabon and neighbouring countries, with a reassessment of the synonyms attributed to *Babycurus buettneri* Karsch and a redescription of *Babycurus melanicus* Kovařík. In: Fisher, B.L. (Ed.) *Monts Doudou, Gabon. A Floral and Faunal Inventory with Reference to Elevational Variation. Memoirs of the California Academy of Sciences* **28**: 235–267.
- Coddington, J.A., Giribet, G., Harvey, M.S., **Prendini, L.**, and Walter, D.E. 2004. Arachnida. Pp. 296–318 In: Cracraft, J. and Donoghue, M. (Eds.) *Assembling the Tree of Life*. Oxford University Press, Oxford.
- Prendini, L.** 2005. Scorpion diversity and distribution in southern Africa: Pattern and process. Pp. 25–68 In: Huber, B.A., Sinclair, B.J. & Lampe, K.-H. (Eds.) *African Biodiversity: Molecules, Organisms, Ecosystems*. Proceedings of the 5th International Symposium on Tropical Biology, Museum Alexander Koenig, Bonn. Springer Verlag, New York.

Book Reviews:

- Prendini, L.** 2001. Book reviews: New volumes on the “minor” arachnid orders. *Journal of Arachnology* **29**(3): 234–237.

Published Abstracts:

- Prendini, L.**, Crowe, T.M. and Linder, H.P. 1997. Challenges to scorpion cladistics: Effects of sex, segmentation and psammophily. *Cladistics* **13**: 177–178.
- Prendini, L.**, Linder, H.P. and Picker, M.D. 1997. Parallel cladogenesis, coevolution and sequential evolution in insect-plant associations: A test case. *Cladistics* **13**: 178–179.
- Prendini, L.**, Crowe, T.M., Linder, H.P. and Wheeler, W.C. 1999. Taking the sting out of scorpion systematics: An outline of progress in understanding the systematics of *Opisthophthalmus* C.L. Koch. *American Arachnology* **60**: 6–7.
- Prendini, L.**, Crowe, T.M., and Wheeler, W.C. 2004. Burrowing scorpion phylogeny and the evolution of paleodrainage systems in southern Africa. *Cladistics* **20**: 93.
- Prendini, L.**, and Wheeler, W.C. 2004. Assembling the Scorpion Tree of Life: Phylogeny of Extant Scorpions based on Molecules, Morphology and Exemplars. *Cladistics* **20**: 602–603.

Popular Articles

- Prendini, L.** 2006. Scorpiones. In: *McGraw-Hill Science Encyclopedia*. McGraw-Hill.
- Prendini, L.** 2003. Threats facing southern Africa's unique scorpion fauna. *Colophon, Newsletter*

of the IUCN/SSC Southern African Invertebrates Specialist Group (SAISG) Newsletter No. 3: 7–11.

Oral Presentations

Plenary: Inaugural Conference, South African Society for Systematic Biology (1999); 5th International Symposium on Tropical Biology, Museum Alexander Koenig, Bonn (2004).

Invited: University of Cape Town (1995, 1998, 2000); Symposium, Scorpion Toxins from southern Africa, Katolieke Universiteit, Leuven (1998); Division of Earth and Planetary Sciences, AMNH, New York (2002); New Mexico State University, Las Cruces (2002); Cornell University, Ithaca (2003); Major Systematic Entomology Facilities Meeting, Plant Protection Research Institute, Pretoria (2003); Zoologisches Museum der Universität Humboldt, Berlin (2004); Friedrich-Schiller-Universität, Jena (2004); Villanova University, PA (2005).

Contributed: 5th International Colloquium, Research Group for the Study of African Arachnids (1996); 15th Meeting, Willi Hennig Society (1996); Symposia, Zoological Society of Southern Africa (1996, 1997); Joint congress: Entomological Society of Southern Africa (11th Congress) and African Association of Insect Scientists (12th Congress) (1997); XIV International Congress of Arachnology and 22nd Annual Meeting, American Arachnological Society (1998); 23rd Annual Meeting, American Arachnological Society (1999); 6th International Colloquium, African Arachnological Society (1999); 15th International Congress of Arachnology (2001), convened symposium on Scorpology; 23rd Meeting, Willi Hennig Society (2004); 16th International Congress of Arachnology (2004).

Coauthored: 15th International Congress of Arachnology (2001); Symposium, Assembling the Tree of Life: Science, Relevance, and Challenges, AMNH, New York (2002); III Encuentro de Aracnólogos del Cono Sur (2003); IV Encuentro de Aracnólogos del Cono Sur (2003); 19th Annual Meeting of the Society for the Protection of Natural History Collections (2004); 16th International Congress of Arachnology (2004); Assembling the Tree of Life Principal Investigators' Meeting, National Science Foundation, Arlington, VA (2004).

Posters

16th International Congress of Arachnology (2004); Expanding the Ark: The Emerging Science and Practice of Invertebrate Conservation. Spring Symposium, Center for Biodiversity and Conservation, American Museum of Natural History, New York (2004); Assembling the Tree of Life Principal Investigators' Meeting, National Science Foundation, Arlington, VA (2004); European Arachnological Meeting (2005)

Press

Rotunda
Martha Stewart Kids Magazine

Grants

Corporate Sector, South Africa: Anglo-American Corporation (1992); Standard Bank of South Africa (1992–1994); The Premier Group (1992, 1993, 1994).

Private Organisations: American Arachnological Society (1998, 2000); Skye Foundation and Charitable Trust (2000); Stavros Niarchos Foundation (2003); Richard Lounsbery Foundation: Co-PI (with M.E. Siddall and R. DeSalle) on 'DNA barcoding of Leeches and Scorpions' (2004–2007).

University of Cape Town: Myer Levinson (EMDIN) Scholarship (1996, 1997); S.A. College Croll Scholarship (1996, 1997).

U.S. Academic Institutions: Theodore Roosevelt Memorial Fund, American Museum of Natural History (1997, 1998); Ernst Mayr Grant, Museum of Comparative Zoology, Harvard University (1998); Collections Study Grant, American Museum of Natural History (1999); Visiting Researcher, Program for the Promotion of International Partnerships, University of Michigan (1999).

Foundation for Research Development, South Africa: Prestigious Scholarships (1992–1999, annually).

National Science Foundation, U.S.A.: Co-PI (with W.C. Wheeler, J.A. Coddington, G. Hormiga

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and P. Sierwald) on EAR 0228699 'Assembling the Tree of Life: Phylogeny of Spiders' (2002–2006); PI (with W.D. Sissom) on BIO-DEB 0413453 'REVSYS: Revisionary Systematics of the North American Scorpion Family Vaejovidae (2004–2008).

Awards

Certificates of Merit (Botany, Zoology), University of the Witwatersrand (1992, 1993, 1994); South African Breweries Bronze Medal (1992), Silver Medal (1993), Gold Medal (1994); Tree Society of Southern Africa Prize (1993); Peter Thompson Prize (1993, 1994); John Twinch Memorial Prize (1994); Zoological Society of Southern Africa Award (1994, 1995); Wayne Rendell Memorial Award (1995); Purcell Memorial Prize (1995, 2002); 5th International Colloquium of the Research Group for the Study of African Arachnids (1996); 6th International Conference of the African Arachnological Society (1999).

Reviewer

Australian Biological Resources Study; National Research Foundation, South Africa; National Science Foundation, U.S.A.; Czech Science Foundation; U.S. Fish and Wildlife Service; Amazoniana; American Museum Novitates; Arnoldia Zimbabwe; Biota Colombiana; Canadian Journal of Zoology; Cimbebasia; Cladistics; Israel Journal of Zoology; Journal of Arachnology; Molecular Phylogenetics and Evolution; Organisms, Diversity and Evolution; Proceedings of the National Academy of Sciences, USA; Revue Suisse de Zoologie; Studies on Neotropical Fauna and Environment; Systematic Entomology; Zoologischer Anzeiger; ZOOTAXA, Natural History; Catalog of the Scorpions of the World (1758–1998) (Fet et al., 2000); Methods and Tools in Biosciences and Medicine: Techniques in Molecular Evolution and Systematics (DeSalle et al., 2001); Proceedings of the 19th European Colloquium of Arachnology (Scharff & Toft, 2001); The Biology of Opiliones (Pinto-da-Rocha, Machado & Giribet, in press).

Molecular Systematics Laboratory Experience

University of Cape Town (1996); American Museum of Natural History (1997–2000, 2002–); University of Michigan, Ann Arbor (1999).

Field Experience

Sixteen years (1989–) in southern Africa (Botswana, Namibia, South Africa, Swaziland, Zimbabwe). Field trips (e.g. the Namib, Kalahari, Kaokoveld and Richtersveld) required proficiency in off-road driving with a 4x4, and complete self-sufficiency (all necessary fuel and water had to be brought, in addition to standard supplies). Completed 5-day hike and survey of the scorpion fauna of the Brandberg Massif, which involved carrying all supplies and water in a 40 kg backpack (2004). A collection of ca. 5,000 scorpion specimens, accumulated during six years' collecting in southern Africa, was disseminated to various southern African, American, and European museums; collections have been growing at the AMNH since 2002. Fieldwork also conducted in southwestern U.S.A. (AZ, CA, NM, NV, TX: 1997, 2002, 2005), Caribbean (1999), Mexico (2002, 2005), central Asia (Kazakhstan, Uzbekistan: 2003), Chile and Argentina (2003).

Collections Experience

Ten years' (1995–), the following collections visited, besides the AMNH: Albany Museum, Grahamstown; California Academy of Sciences, San Francisco; Field Museum of Natural History, Chicago; Forschungsinstitut und Natur-Museum Senckenberg, Frankfurt; McGregor Museum, Kimberley; Musée Royal de l'Afrique Centrale, Tervuren; Museum National d'Histoire Naturelle, Paris; Museum of Comparative Zoology, Harvard University, Cambridge, MA; Natal Museum, Pietermaritzburg; National Collection of Insects and Arachnids, Pretoria; National Museum of Namibia, Windhoek; National Museum of Natural History, Smithsonian Institution, Washington, DC; National Museum, Bloemfontein; South African Museum, Cape Town; The Natural History Museum, London; Transvaal Museum, Pretoria; Zoologisch Museum, Universiteit van Amsterdam; Zoologisches Forschungsinstitut und Museum Alexander Koenig, Bonn; Zoologisches Institut und Zoologisches Museum, Universität Hamburg; Zoologisches Museum, Universität Humboldt, Berlin. Material loaned from a further 15 collections. Helped curate scorpion collections of the Transvaal Museum, the South African Museum, and the National

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Museum of Namibia (1995–2001, 2004). Arranged purchase of Alexis Harington Scorpion Collection (ca. 6,500 specimens) by the AMNH (2002) and currently oversee curation of arachnid and myriapod collections in the AMNH (since 2002). Started and continue to enlarge the world's only synoptic collection of scorpion tissues at the Ambrose Monell Collection for Molecular and Microbial Research of the AMNH (1999–): ca. 2,000 tissue samples and associated vouchers, acquired by personal collections and donations from colleagues.