



# ***FLY TIMES***

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Welcome to the latest issue of *Fly Times*! Let me first thank everyone for sending in such interesting articles – I hope you all enjoy reading it as much as I enjoyed putting it together! This issue is a rather large one, with nearly 60 pages! With that, please let me encourage all of you to consider contributing articles that may be of interest to the Diptera community. *Fly Times* offers a great forum to report on your research activities and to make requests for taxa being studied, as well as to report interesting observations about flies, to discuss new and improved methods, to advertise opportunities for dipterists, and to report on or announce meetings relevant to the community. This is also a great place to report on your interesting (and hopefully fruitful) collecting activities!

The electronic version of the *Fly Times* continues to be hosted on the North American Dipterists Society website at <http://www.nadsdiptera.org/News/FlyTimes/Flyhome.htm>. The Diptera community would greatly appreciate your independent contributions to this newsletter. For this issue, I want to again thank all the contributors for sending me so many great articles! That said, we need even more reports on trips, collections, methods, updates, etc., with all the associated digital images you wish to provide. Feel free to share your opinions or provide ideas on how to improve the newsletter (as the “new guy,” I am very happy to hear ways that I can enhance the newsletter!).

The *Directory of North American Dipterists* is constantly being updated and is currently available at the above website. Please check your current entry and send all corrections to [Jeff Cumming](#). There is a form for this on the last page of the newsletter.

Issue No. 43 of the *Fly Times* will appear next October. If possible, please send your contributions by email, or disc, to the editor at [sgaimari@cdfa.ca.gov](mailto:sgaimari@cdfa.ca.gov). All contributions for the next *Fly Times* should be in by 10 October 2009.

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## NEWS

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### Jose Henrique Guimarães, 1937 – 2008

By Phil Scholl

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Dr. Guimarães was born in the city of Rio de Janeiro, Brazil on 8 October 1937. He graduated in Veterinary Medicine from the Federal University of Rio de Janeiro in 1962. He was a student of Dr. Hugo de Souza Lopes at UFRJ in collaboration with the Oswaldo Cruz Institute where he initiated his studies in the taxonomy of the Tachinidae. He obtained his MS degree in 1969 on the Nearctic species of *Winthemia* spp. at the University of California-Riverside with Dr. Lauren Anderson, in collaboration with Dr. Curtis Sabrosky. In 1973 he received his PhD from the University of São Paulo with Dr. Claudio G. Froehlich on the systematics of the Mesembrinellidae.

Dr. Guimarães was an internationally-respected taxonomist because of his voluminous contributions to Neotropical Diptera, especially in the families Tachinidae, Calliphoridae and Oestridae, notably Cuterebrinae and Gasterophilinae. He authored nearly a hundred works including scientific journal articles, book chapters, and books including *Myiasis in Man and Animals in the Neotropical Region*, *Systematic Database of Diptera of the Americas South of the United States (Family Culicidae)*, *Ectoparasites de Importância Veterinária*, to name just a few. He was also responsible for an impressive list of new descriptions including 16 genera and 163 species.

Dr. Guimarães, who passed on 14 October 2008, will be remembered for his prodigious contributions to Dipterology, the large number of students he mentored, and for his wonderful personality.

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### Brandberg Massif (Namibia) serves up another living fossil!

by Bradley J. Sinclair<sup>1</sup> & Ashley H. Kirk-Spriggs<sup>2</sup>

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There are numerous examples of present-day genera of flies represented in Tertiary ambers (40–15 Mya), but far fewer from Mesozoic fossils; such examples are restricted to “nematocerous” Diptera (Evenhuis 1994). In the “dance flies” (Empidoidea), only one example is recorded (i.e., the genus *Apalocnemis*), known from Santonian-aged (76–80 Mya) ambers of Canada (Grimaldi & Cumming 1999). In all these cases, the extant genus was initially known from present-day species, being subsequently identified in amber (e.g., the genus *Valeseguia*) (Grimaldi & Engel 2005). Empidoids are the most diverse lineage of Brachycera known from Cretaceous ambers (Grimaldi & Engel 2005).

By contrast, the genus *Alavesia* Waters & Arillo was originally named for a series of amber inclusions dated from the Early to Late Cretaceous (112–89 Mya) from outcrops in northern Spain and Burma (Waters & Arillo 1999; Peñalver & Arillo 2007; Grimaldi et al. 2002) (Figs. 1A). We report here the discovery of two extant new species of *Alavesia*, sampled on the Brandberg Massif, Namibia (21°13.5'S, 14°31.1'E) (Fig. 1B). Specimens were sampled using Malaise traps and yellow pans positioned over dry or episodic riverbeds at, or exceeding, elevations of 1750 m a.s.l., as part of a faunal inventory project undertaken in 1998 (Kirk-Spriggs & Marais 2000), and in March 2002. It was not until early 2007 that these specimens were recognized as this Mesozoic genus. Consequently, *Alavesia* can truly be regarded as a living fossil and its discovery is similar to, but perhaps less astonishing, than the discovery of extant specimens of the Coelacanth in 1938. The thorny lacewings (Neuroptera: Rhachiberothidae), although not presently recorded from the Brandberg, have a similar distribution, restricted today to sub-Saharan Africa, but were widespread in the Cretaceous (Grimaldi et al. 2002).

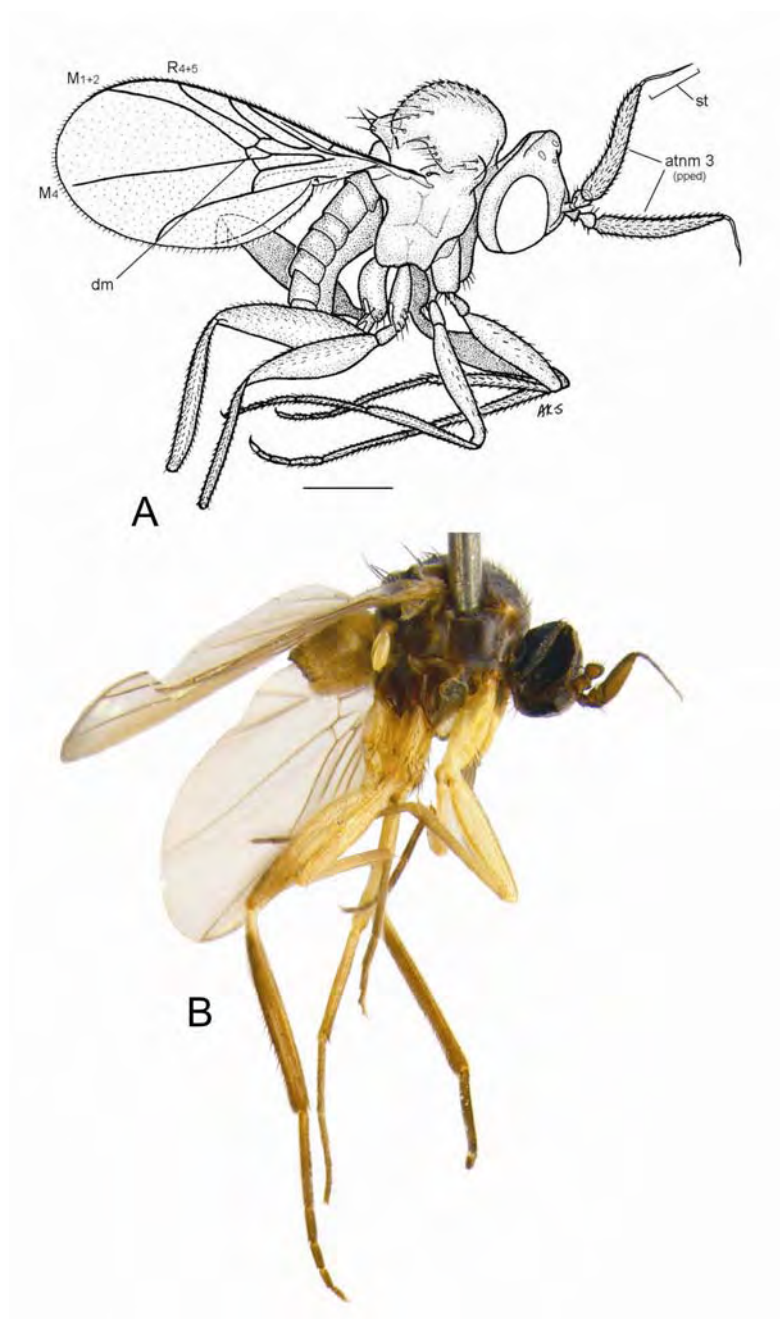
*Alavesia* is characterized by a large, broad third antennomere (postpedicel), three-articled stylus, and wing venation with a distinctive diminutive dm cell and divergent  $M_{1+2}$  and  $M_4$  (4<sup>th</sup> and 5<sup>th</sup> veins) (Fig. 1A). The wings of the extant species of *Alavesia* measure 1.8–2.3 mm in length.

The Brandberg comprises a massive inselberg 650 km<sup>2</sup> in size, rising 1.8 km above the Namib penepplain. It consists of a granitic ring complex, which pre-dates the break-up of Gondwana and thus also the change in continental climatic and environmental conditions that prevailed during the Plio-Pleistocene (Kirk-Spriggs & Marais 2000). The extensive undulating upland plateau (ca. 2000 m a.s.l.) exhibits a winter rainfall climate and associated flora. The significance of the Brandberg as a refugium for living fossils has been previously highlighted by the discovery of the first living examples of Mantiphasmatodea (Zompro et al. 2003). Many notable endemics in the Diptera have been documented in several families and the discovery of *Alavesia* further serves to highlight the evolutionary significance of the Brandberg.

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**Fig. 1. A,** *Alavesia* sp. (Diptera: Empidoidea) in Burmese amber (*ca.* 100 Mya) (AMNH), **B,** extant *Alavesia* sp. 1, one of two new species from the upland plateau of the Brandberg Massif in Namibia. Abbreviations: atnm 3 = antenno-mere 3; dm = discal medial cell; M = medial veins; pped = postpedicel; R = radial vein; st = stylus. Scale bars: A = 0.20 mm; B = not to scale.