

# Newsletter of the Arachnological Society of Africa

Newsletter no 20 2008



This is the newsletter of the African Arachnological Society (AFRAS). The aim of AFRAS is to foster interest in arachnids (non-Acari) of the African continent.

#### IN THIS ISSUE

9th AFRAS Colloquium	n 1
17th ISA Congress	2
European Congress	2
Second edition	3
PBI project	3
AFRAD launch	4
Virtual Museum	4
Online linyphiid key	4
Institutional News	5-11
Belgium	5
UK	5
Namibia	6-7
Israel	6
Gambia	6
Zimbabwe	7
Lesotho	7
Botswana	7
South Africa	8-11
New publications	12-13
Congress contribution	s 13
Best wishes	14

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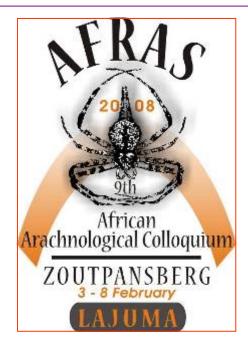
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## 9th AFRICAN ARACHNOLOGICAL COLLOQUIUM



The 9th African Colloquium of Arachnology will be held at Lajuma in the Soutpansberg 3-8 February 2008. The colloquium are jointly organized by Dr Stefan Foord of the University of Venda and the spider ladies at the ARC.

Lajuma is situated in the northern part of South Africa in the Limpopo Province high up in the Soutpansberg Mountain Range between Makhado and Vivo. The area is famous for its breathtaking mountain scenery and pristine wilderness.

Lajuma has been declared a National Heritage Site and forms part of the Thavho Ya Muno Private Nature Reserve. The area has a rich arachnid fauna and 337 spider species have so far been recorded from there, including a number that are new to science. Lajuma has research, conference and accommodation facilities. More information is available from their website at www.lajuma.com.

Colloquium updates will be made as they happen and will be posted on the official website http://soutpansberg.com/aac9

The **deadline** for payment of registration and submission of abstracts are

5 January 2008.

#### **REGISTRATION FEES**

The registration fee is set at R350. This will include teas, a welcoming function (Sunday evening) and copies of the program and abstracts (see attached registration form).

Extra - colloquium dinner: Thursday evening, 7 February, at R70 per person – also payable with registration fee.

The Colloquium will also be attended by a group of scientists (11) from abroad participating in the PBI Oonopidae project. A team from Belgium under leadership of Rudy Jocqué will demonstrate the fogging of tree canopies directly after the colloquium.



**Interested people can contact**: Dr Stefan Foord (SFoord@univen.ac.za) or

Dr Ansie Dippenaar-Schoeman (DippenaarA@arc.agric.za)

Or visit <a href="http://soutpansberg.com/aac9">http://soutpansberg.com/aac9</a>

## 17th INTERNATIONAL CONGRESS OF ARACHNOLOGY-FEEDBACK



The 17th International Congress of Arachnology took place from 5-11 August 2007 in São Pedro, Brazil. This was the first time that the International Congress was hosted by a South American country. The congress

venue at the hotel Fazenda Colina Verde was located within the tourist area of São Pedro, 180 km from the Capital City of São Paulo. The hotel provided ample opportunity for recreation after lectures and the most wonderful meals.

A total of 320 delegates from 34 countries attended the congress. A total of 115 oral papers and 259 posters were presented, dealing with ta variety of topics.

Africa was well represented with Ansie Dippenaar-Schoeman, Stefan Foord Charles Haddad and Leon Lotz attending. Then there was also the "lost son" in the USA Lorenzo Prendini. Although not all from Africa a total of 21 papers and papers on African arachnid fauna were presented at the congress (for list see p. 14).

For the first time ISA awarded people: Prof **Herb Levi** received the award for his contribution over a life time; Dr **Charles Griswold** received an award for his contribution over the last five years and Dr **Norman Platnick** received the award for his service to the Arachnological community through his catalogue.

The new ISA president is Dr **Nikolaj Scharff** and the next congress will be held in Poland in three years time.



The A-team: Lorenzo Prendini, Ansie Dippenaar-Schoeman, Leon Lotz, Charles Haddad and Stefan Foord

If you want to see more fun photographs visit the website at: <a href="mailto:isacongress@butantan.gov.br">isacongress@butantan.gov.br</a>

During the 17<sup>th</sup> International Congress of Arachnology in Brazil an **international working group on the family Corinnidae** was established. The main aims were the exchange of information between researchers, collaborating on taxonomic projects, setting up a discussion forum on the internet, and the future cooperative study on the phylogeny of the Corinnidae based on morphological and molecular data. Present during the first

meeting was Martin Ramirez (Argentina), Alexandre Bonaldo, Christina Rheims and Antonio Brescovit (all Brazil), Robert Raven (Australia) and Charles Haddad (South Africa). Other researchers likely to join the group include Jan Bosselaers (Belgium), Robin Lyle (South Africa), Norman Platnick and Sarah Crews (U.S.A.) and various other colleagues in Europe and Asia. We hope that the establishment of this group will lead to a greater interest in the systematics and ecology of Corinnidae, and lead to the more rapid resolution of the taxonomy of the family worldwide.

Contact Charles Haddad

## INVITATION TO 24th EUROPEAN CONGRESS OF ARACHNOLOGY

An invitation to attend the 24th European Congress of Arachnology 25-29 August 2008 in Bern Switzerland. The conference will be held in the university's historical main building,next door to the railway station. It is jointly organised by the University of Bern, and the Natural History Museum Bern, and supported by KCS Convention Service.

Bern is Switzerland's cosy capital, and a UNESCO Cultural World Heritage Site. It is located inside a loop of the Aare river that comes directly fromt he nearby Alps. This provides for both cultural and natural highlights, some of which can be explored during the conference. Although Switzerland is relatively expensive, the congress fee is comparable to former European Congresses. We are making all efforts to limit costs, e.g. by arranging private accommodation for students. Conference contributions consist of talks, posters, photos, films, and books. The best posters and photos will be awarded. We especially encourage national and regional arachnological societies to present their organization on a poster.

We would like to invite you to organise symposia on topics such as behaviour, ecology, faunistics, methodology, physiology, systematics, taxonomy and toxicology of the different groups of arachnids. More specialised topics are welcome, provided that they attract a sufficient number of contributions. Please contact Wolfgang Nentwig with your suggestions by 16. December 2007by e-mail:: wolfgang.nentwig@zos.unibe.ch

Contact: Christian Kropf, Martin Schmidt and Wolfgang Nentwig. Detailed information can be found at: http://www.esa2008.unibe.ch/

## **NEWS FLASHES**

"Spider families of the World"- 2nd edition

The second edition of the book, *Spider Families of the World* by Rudy Jocqué and Ansie Dippenaar-Schoeman, was released in September 2007. This second edition was slightly revised and errors in first edition were corrected.

ISBN: 90-75894-85-6

336 pp., b/w illustrations, with 32 pp. colour plates

Price: 55 euros

**To order:** MRAC Leuvensesteenweg 13, 3080 Tervuren, Belgium <u>publications@africamuseum.be</u> / Fax: +32 2 7695511/ Tel: +32 2 769 5208



## PBI –first workshop



The first workshop of the global Planetary Biodiversity Inventories (PBI) project (4-years) under leadership of Dr Norman Platnick (USA) took place after the congress. A team of 24 investigators on six continents were invited to participate in this very prestigious project funded to the amount of R13 mill.

The workshop took place in Sao Paulo, Brazil in August 2007. During the workshop team members were trained to use existing cyber-infrastructure to build Internet-accessible databases of the genera and species of the family Oonopidae, to use new application to enter descriptive data into a multi-user database, in a highly structured format that will allow direct use of that information in formal descriptions for publication, on species web pages, in phylogenetic analyses, and in interactive keys.

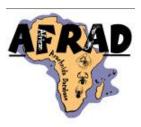
Automated identification systems, using artificial neural networks, will be developed, and the accuracy of those systems will be compared with that achieved by workers, ranging from total beginners to knowledgeable specialists, using interactive keys to the same taxa.

Contact: Dr Norman Platnick

The first PBI collecting trip will take place in South Africa in February at Lajuma in the Western Soutpansberg. Researchers from Brazil, USA, Belgium, Russia and Switzerland will meet during the African Arachnological Colloquium. Fogging of the canopy to search for Oonopidae is part of the agenda

## LAUNCH OF THE AFRICAN ARACHNIDA DATABASE—PHASE I

The ARC-Plant Protection Research Institute and the Koninklijk Museum voor Midden-Afrika, Belgium launched the African Arachnida Database (AFRAD) in 1995, in accordance with the Convention on Biological Diversity. AFRAD is an umbrella project dedicated to the unification and enhancement of biosystematic research on Arachnida in Africa.



The main aim of AFRAD is to make an inventory of the Arachnida fauna of Africa that will provide essential baseline information needed to address issues such as conservation and sustainable use. A database developed by the ITC team at ARC Central Office enables the compilation of information on the African Arachnida.

At the end of July 2007 the first phase of the AFRAD database went live on the ARC website. This is one of the first efforts to make ARC-databases available on-line. As part of phase 1, data on all 72 spider families are now available. This includes a list of all the species and data on their morphology, behaviour, distribution in the Afrotropical Region as well as information on research activities. The information is richly illustrated with black and white line drawings, as well as colour photographs. All the information can be printed out as a PPRI fact-sheet. The second phase to be launched soon, will provide information on more than 600 spider genera.

The AFRAD expert system is available on-line on the ARC web site (<a href="www.arc.agric.za">www.arc.agric.za</a> see quick link AFRAD). AFRAD has provided a remarkable stimulus to Arachnid research in Africa since the launch of the project. Several projects have already been completed or are in progress. The identification tools will make an important contribution to bypass the present taxonomic impediment.

Contact: Dr Ansie Dippenaar -Schoeman at DippenaarA@arc.agric.za or

Dr Rudy Jocque at Rudy.jocque@africamuseum.be

## LAUNCH OF VIRTUAL MUSEUM — SOUTH AFRICAN NATIONAL SURVEY OF ARACHNIDA

As part of the South African National Survey of Arachnida (SANSA), a virtual museum was developed on the ARC website. The public can participate in SANSA by submitting photographic records of arachnids with locality information.

This activity has proved to be very popular amongst the public, and since September 2006 these submissions have come streaming in. With the help of ARC's ICT Applications team at Central Office, a database was developed to capture each entry, and to make these entries available to all, using an online virtual museum.

At the beginning of the year the Applications team attended a Visual Studio C# Course in order to upgrade their development environment. This enabled them to produce new systems more rapidly. An added benefit is that they now have the ability to add rich functionality, such as maps, charts etc., to the systems—something that was not possible in SANSA in the past.

The more than 600 entries received so far are currently being entered into the database, and the first 300 entries can already be viewed online at

www.arc.agric.za/vmuseum/vmuseumMain.aspx

The identification of each species as well as some information is provided with each photograph. *Interested persons are invited to forward their images to Ansie Dippenaar-Schoeman at DippenaarA@arc.agric.za* 

## AN INTERACTIVE KEY TO THE AFRO-TROPICAL GENERA OF THE LINYPHIDAE

Rimma Seyfulina and Rudy Jocque have prepared an interactive key for the genera of Afrotropical Linyphiidae. It is accessible through

http://www.africamuseum.be/research/zoology/invertebrates/research/zoology/invertebrates/intKey/index html

In case you do not have "Intkey" on your hard disk you will have to load it down first.

It is an interactive key to all the genera of Linyphiidae (Araneae) that have been encountered in the Afrotropical realm including the surrounding tropical islands. It will lead you by separate keys for males and females to the genus. Clicking on the genus name will produce a list of all the Afrotropical species in the genus (with very few exceptions) and clicking on one of these will present the main illustrations for that taxon. The key thus contains diagnostic drawings of the majority of the Afrotropical species. If we had this for all the families our identification problem would largely be solved.

The site further has an introduction with a manual how to use the key and a checklist of Afrotropical species of Linyphiidae.





#### **WELCOME TO AFRAS**

New AFRAS members:

Björn Klatt: tierchen3@gmx.de

Diarra Moussa: diarra.moussa@gmail.com

## **INSTITUTIONAL NEWS**

#### **BELGIUM**

#### Koninklijk Museum voor Midden-Afrika, Tervuren

#### Dr Rudy Jocqué

Domir De Bakker is still continuing his work on canopy spiders from rainforests. After a rather unproductive visit in 2006 (when he had to come back due to heavy rains), he has been back in DR Congo in the Luki Biosphere Reserve (Mayombe, Bas-Congo) during the month of September 2007 (end of the dry season). He has done about 20 foggings divided over primary and secondary rainforest. Combined with 100 pitfall traps and numerous beating and litter sieving samples, we can say we'll have a good first look on the spider fauna of this biosphere reserve. Furthermore, Domir is currently in Copenhagen (with Nicolaj Scharff) for one month within the SYNTHESYS-project to sort out thousands of samples from a canopy fogging campaign in Tanzania (Usambara Mountains). Undoubtedly this collection will yield a high number of new species (the Eastern Arc Mountains are known for their high endemism) and improve our knowledge on the distribution of canopy spiders in tropical Africa.

Rudy Jocqué further struggles to finish a number of revisions in the Cydrelinae (Zodariidae) in between the work for the PBI on Oonopidae. Rudy will be a member of the jury for the PhD thesis of Jean-Louis Juakaly Mbumba of the university of Kisangani that will be defended on 8 December. The title of the thesis is: Résilience de la biodiversité dans une forêt équatoriale en R. D. Congo: Etude écologique des araignées de la Réserve de Masako. (Resilience and biodiversity in a rainforest in the Congo D.R.: ecological study of the spiders of the reserve of Masako.)

Wouter Fannes is now deeply involved in the PBI Oonopidae. Within the framework of the Planetary Biodiversity Inventory (PBI)-project "The Megadiverse, Microdistributed Spider Family Oonopidae" the diversity of these minute and taxonomically understudied spiders is investigated, thereby focussing on the fauna of mainland Africa. A complete survey of the MRAC oonopid collection has led to the discovery of 26 presently undescribed oonopid genera, most from West and Central Africa, representing at least 150 undescribed morphospecies. Currently attention is concentrated on the preparation of on-line descriptions of these new genera. In addition, the canopy-dwelling oonopid fauna of 14 Afrotropical rainforest and savannah sites was inventoried in order to gain knowledge on the species richness, morphological diversity and distinctness of arboreal oonopid communities.

**Arnaud Henrard** is a student of the UCL (Université Catholique de Louvain) who will prepare an MSc on canopy dwelling Afrotropical *Orchestina* in function of the PBI.

**Katrijn Loosveldt** has given up her study on the canopy spiders of savanna trees.

#### **AFRICAN VISITORS**

The lab in Tervuren has had the visit of **Robin Lyle** (South Africa) from 3 to 13 July to consult the Corinnidae for her study on *Trachelas* and *Cetonana*.

**Allet Honnibal** (South Africa) visited the lab from 1 to 27 October to consult the collections of Afrotropical Thomisidae in function of her revisions on the Dietinae. Allet looked at hundreds of unidentified samples and identified most of these to genus which added considerably to the accessibility of that collection.

**Benoît Nzigidahera** (Burundi) was in Tervuren from 15 October to 7 November to study his spider collections from forests in Burundi. He mainly studies the altitudinal zonation in apparently monotonous forest blocks. His collections contain many undescribed species. Some of these, belonging to well defined and revised genera will be described. Some of the interesting species are a couple of new *Kidugua* (Agelenidae) with the first males of the genus.



Koninklijk Museum voor Midden-Afrika Tervuren

#### **NEWS FROM THE UK**

Richard Gallon is continuing with his revisions of the Theraphosidae of Africa. The following article appeared recently

#### Linnaeus' Baboon Spiders

Richard C. Gallon

Back in January 2006 Ray Gabriel, Andrew Smith and myself had the opportunity to examine the two theraphosid spiders present in the Linnaean Society Collection, London. Naturally it was assumed that these *c*.250-year-old specimens were *Avicularia avicularia* (Linnaeus, 1758), an arboreal South American species.

However, we were surprised to discover that both of Linnaeus' specimens were African. We identified the larger of the two specimens as a female *Stromatopelma calceatum* (Fabricius, 1793), an arboreal species from West Africa. The smaller specimen was found to be a mature male *Harpactira atra* (Latreille, 1832), a baboon spider found in the vicinity of Cape Town. These two spiders are almost certainly the oldest surviving theraphosid museum specimens.

A full account on these specimens is presented in the following article: Gabriel, R., Gallon, R. C. & Smith, A. M. 2007. Examination of the *Avicularia avicularia* specimens from the Linnaean Collection. *Journal of the British Tarantula Society*, **23**(1): 22–30.

#### **ISRAEL**

#### Yael Lubin

Yael Lubin is planning to visit South Africa with two students of Germany in Feb-May 2008. They will conduct field observations of the spider *Stegodyphus tentoriicola* (Eresidae) and would like to collect some individuals for population genetic analyses, which will be conducted in Germany.

This species is a sub-social relative of the social spider (*S. dumi-cola*), and the intention is to investigate behavior and population structure in this species in order to understand the conditions that may have led to the evolution of sociality in spiders.

#### **GAMBIA**

#### **David Penney**

The Gambia lies on the western coast of tropical Africa and is one of the smallest countries on the continent. From north to south it lies equidistant between the tropic of Cancer and the equator extending only approximately 48km, but from west to east it is roughly 330 km as it tracks the course of the River Gambia inland. There are no hills to speak of and the whole country lies below 100m, with most of it at less than 50m. To the north, south and east The Gambia is bordered by Senegal.

It was not until I moved here in January 2007 that I had any interest in the Gambian spider fauna. I was very surprised to discover that almost nothing is known about the spider fauna of the region. This dearth of knowledge is obvious when one looks more closely at the distribution data for each genus listed in Dippenaar-Schoeman & Jocque's (1997) *African Spiders. An Identification Manual.* Ten years on, the AFRAD database lists only 5 spider species for The Gambia, with 140 species for neighbouring Senegal (data kindly supplied by Ansie Dippenaar-Schoeman).

In this short note I report on my observations to date. I have been photo-documenting the spider fauna, but as of yet have not done any sampling or microscope work whatsoever, which would surely yield plenty of additional species, genera and even family records. In the following list the minimum number of species so far observed is provided in parentheses after each family identified to date.

Araneidae (16), Cithaeronidae (1), Corinnidae (6), Ctenidae (3), Deinopidae (1), Dictynidae (3), Eresidae (1), Filistatidae (1), Gnaphosidae (3), Hersiliidae (1), Linyphiidae (2), Lycosidae (3), Miturgidae (1), Nephilidae (2), Oecobiidae (1), Oxyopidae (6), Philodromidae (2), Pholcidae (3), Pisauridae (4), Prodidomidae (1), Salticidae (24), Scytodidae (1), Selenopidae (2), Sparassidae (4), Tetragnathidae (3), Theridiidae (9), Thomisidae (4), Segestriidae (1), Uloboridae (2) and Zodariidae (1).

The above list comprises 112 species in thirty families (from visual sampling alone). Other arachnid orders seen to date include: Scorpiones, Pseudoscorpiones, Acari, Solifugae, Amblypygi, Opiliones and even Ricinulei! Clearly there is much work to be done in this part of Africa and I am more than happy to act as a potential facilitator (in terms of permissions and logistics), supervisor, advisor, etc. for established scientists or students who wish to undertake spider research in The Gambia.

It may be of interest to note that The Gambia has distinct wet and dry seasons and some species occur only at certain times of the year. Notable in this respect are the large and abundant *Nephila*, which a re often used for behavioural research. Throughout September and October there are large numbers of these spiders as adults, but what makes The Gambia really interesting from a research perspective is that two species (*N. fenestrata* and *N. senegalensis*) occur in equally large and accessible populations at the same time. Thus, there is great potential for interesting comparative studies. I look forward to seeing an increased arachnological presence in the region in the not too distant future.

#### **New African spider publications**

Penney, D. in press. Possible anti-predator function for the stabilimentum in a West African (Bijilo Forest, The Gambia) *Cyclosa* (Araneae, Araneidae). *J. Afrotrop. Zool.* 

#### **NAMIBIA**

#### **Gobabeb Training and Research Centre**

#### Joh Henschel

The long-term annual population censuses of corolla spiders (*Ariadna* cf. *masculina*), spoor spiders (*Seothyra henscheli*) and dancing white lady spiders (*Leucorchestris arenicola*) are going into the 9th, 19th and 20th seasons respectively. Fieldwork is currently being conducted on this.

#### Biodiversity survey of the Araneae and their hunting methods at the NamibRand Nature Reserve

Björn K. Klatt

A survey to determine the biodiversity and hunting methods of spiders in the NamibRand Nature Reserve (Namibia) were undertaken to determine their dependence on vegetation and the floral structure.

The NamibRand Nature Reserve in the pro–Namib desert is an example ofthe species richness and unique environment of Namibia. At its location between the Namib desert in the west and the Nubib Mountains in the east, all facets of the Namib Desert are represented on the Reserve – sand, gravel plains and stretches of savanna alternated with mountain ranges and vegetated dune belts. In this extreme habitat no research on spiders has been taken place before this study, that is part of a diploma thesis from Germany. It shall increases the knowledge about the ecological preferences of spiders, their biodiversity and dependence on particular ecological factors.

Because of their strong dependence on the microclimate of their environment, the biodiversity, the composition of species of Araneae and their hunting methods should show differences with the vegetational structure. The aim is to examine the spider biodiversity of the different kinds of floral structures and vegetation in the NamibRand Nature Reserve.

## NAMIBIA (cont.)

The study has taken place from the beginning of July till the end of September 2007. Alltogether twelve different areas were examined once every month. They include vegetated dune belts, different types of grasland, montain slopes, perenial river beds, gravel plains and rocky fields with thorn shrubs. Four of these areas are named as "special areas", than because of the stony ground pitfall traps did not work. The specimen were only caught by hand to jar and in the analysis these areas will be handled with different statistics.

Three different methods were used along a line transect of 500 m: hand to jar and pitfall traps at day and night and light traps only at night. In the pitfall traps, water was used for killing the specimen.

At the beginning, weather, geographical and geological conditions and plant structure and biodiversity of every research area were examined and registered. To avoid mistakes, the weather parameters were checked daily at the prevailing area and all methods were used under similar conditions. The particular terms of the structure of vegetation are biodiversity, height, number and transparency of horizontal layers and covering.

The examination started with burrowing the pitfall traps that stayed 24h in the field. Than every seen spider was caught by hand to jar the next two hours along the line transect with a range of 10 metres distance from every side of the line. The light trap could only be used in September within the increasing night temperature. It was positioned for 12h at night at a point in the middle of the line transect.

At the present time of this study, only a small range of the whole results are available. It could be not overall said, that all the spiders are dependent on the floral structure. In fact most of the species of the 25 caught spider families seem to be more dependent for example on the structure of the ground or the availability of their distinct prey than on the structure of vegetation. Only a few of the caught specimen like the Oxyopidae and the Thomisidae show a dependence on special structures of vegetation.

For example all oxypids were found on or nearby grasses like *Stipagrosis ciliata* and S. *obligata* and all thomisids were found on or nearby trees, especially on *Acacia mellifera*.

The completement of this diploma thesis is intended for the end of March 2008, the complete results are available soonest at the end of January 2008.

Contact: Björn K. Klatt Student at the University of Münster, Germany b.k.klatt@gmx.de



Oxyopids, one of the families commonly collected at NamibRand Nature Reserve

#### **ZIMBABWE**

Meg Cumming with the help of Tony Russell-Smith and several other arachnologists is busy preparing another paper on the diversity of spiders in her 0.6 ha garden in Harare, Zimbabwe. Five papers on the spiders in her garden have already been published. A total of 200 species has so far been collected with the Thomisidae the most abundant family recorded with an amazing **50 species**. The salticids are not far behind with 47 spp. Meg and Wanda have wrapped up the salticid paper and it is now with the reviewers. We hope to see it early in 2008.

#### **LESOTHO**

As part of the African Arachnida database (AFRAD) all published records are entered into a database with their distribution records. Presently 55 species of spiders have been recorded from Lesotho. However, this number will increase as more data is entered and the unsorted material collected in Lesotho is identified. This includes approximately 130 species collected in the Mohale Dam baseline surveys, and approximately 180 species collected in southern Lesotho as part of the "Conserving Mountain Biodiversity ion Southern Lesotho Project" during 2003-2004. Charles Haddad has done the preliminary identifications of this material, which will be sent to ARC—PPRI for further identification. Sadly, a wonderful opportunity to develop our knowledge of Lesotho's arachnids was missed during the biomonitoring phase of the Maluti-Drakensberg Transfrontier Park surveys. South Africa's sampling for invertebrates was co-ordinated by the Inland Invertebrate Initiative, and yielded more than 7000 spider specimens. Although a large sum of money was made available by the World Bank for field work in Lesotho, nothing ever materialised, which is naturally very dissappointing. Of particular interest would have been a comparison of spider diversity on the Maluti Mountain escarpment versus the fauna in the high altitude parts of the Drakensberg.

## **BOTSWANA**

Presently 224 species are known from Botswana. No surveys are presently underway from researchers within Botswana. Some collecting is being done by South Africans visiting the country such as Charles Haddad. Charles visited Botswana with two students, José Parau and Ciska Jordaan in December 2006 with the primary aim of collecting corinnids in some poorly sampled areas.

In the Okavango Delta (Lesideng Research Camp) collecting focussed on riverine forest and arid savanna in the surrounding areas. Approximately 105 species were collected in the area.

#### **MOZAMBIQUE**

We know a little more about the arachnid diversity of Mozambique. Presently 147 species have been recorded from Mozambique but the number of species will increase as more material is collected.

The Spider Research Centre presently has as Memorandum of Agreement with the Niassa Game Reserve in Mozambique to add material collected by Colleen and Keith Begg to the AFRAD database. So far about 90 specimens have been collected.

Charles Haddad and his students are visiting Mozambique in December 2007 to collect arachnids but especially corinnids.

## **SOUTH AFRICA**

#### ARC-Spider Research Centre

#### Ansie Dippenaar-Schoeman

The ARC team this year consisted of Ansie, Annette van den Berg, Almie van den Berg (in part), Connie Anderson, Petro Marais, Elizabeth Kassimatis and Sma Mathebula. Allet Honibal a MSc student is also working in the lab at ARC.

**TAXONOMIC RESEARCH**: The revisionary work on the Thomisidae of the Afrotropical Region started again with Allet Honibal revising a group of genera of the subfamily Dietinae while Petro van Niekerk of the University of South Africa is busy with a revision of the genus *Simorcus* and Ansie and Annette van den Berg is finalizing a revision of *Parabomis* (Bominae). Ansie and Tony van Harten are also busy with the Thomisidae of Yemen. The first papers on the thomisids of Yemen has been published in the Fauna of Arabia.

Ansie is working through the unidentified museum material to extract and identify all the thomisids to be added to the SANSA database. An identification manual on the Thomisidae of Southern Africa is progressing slowly.

**IDENTIFICATION SERVICES**: Numerous projects of students are underway and at ARC the final taxonomic identifications are done or confirmed. A total of >10 000 spiders were identified for students of the Universities of Rhodes, Stellenbosch, Venda and the Free State.. This excludes specimens collected during the Thuthuka project from the Blouberg.

NATIONAL COLLECTION: Time was spent in cleaning the data while upgrading the present ACCESS database to a MYSQL database. The specimen data was successfully transferred to the new database. This project was partly funded by SABIF. The NCA is for a second year funded for digitizing the collection. More than 30 000 entries have been digitized. Most of the extensive slide collection of PPRI has also been digitized

**DATABASES:** A lot of data have been entered into the African Arachnida Database (AFRAD) and the first phase is now available on-line (see p. 2). The National Collection of Arachnida contains more than 30 000 records.

**SPIDER EDUCARE PROGRAMME**: A total of 23 talks; 3 courses, 50 radio talks and 4 TV presentations were given this year.

Ansie Dippenaar-Schoeman presented a three lecture course to the second year students of the Department of Zoology and Entomology of the University of Pretoria. The course "Arachnida of medically, veterinary and agricultural importance in South Africa" is supplemented by a 40-page course manual

The Spider Research Centre at PPRI, received R60 000 from SABIF (South African Biodiversity Information Facility) to capture primary specimen data of specimens housed in the National Collection of Arachnida into the database for 2007. This information will soon be available on-line.

#### SANSA

#### Ansie Dippenaar-Schoeman & Charles Haddad

Numerous projects under SANSA is underway. A newsletter, website and virtual museum form part of the marketing strategie for SANSA, Visit the website at www,arc.agric.za see quick link SANSA for more information.

#### SURVEYS:

Numerous surveys as part of the South African National Survey are underway. Surveys of the fauna of several reserves are underway:

- Surveys in National Parks: Kruger National Park and Augrabies National Park
- Greater St Lucia Wetlands
- Tswalu Game Reserve
- Spiders of the Cape Peninsula
- Spiders of the following reserves: Nylsvley, Rustenburg, Welgevonden, Mkuzi, Polokwane and De Hoop
- Spiders from caves
- Spiders from agro-ecosystems: citrus and grapes
- Oonopidae survey: spiders from Winkler traps in the fynbos, Western Cape
- Survey of the Botanical Garden in Pretoria.

#### **NEW SURVEYS 2008**

A GAP analysis was made of our present knowledge of spider distribution in South Africa. Four teams will survey areas not previously sampled in the Northern Cape, Limpopo, Mpumalanga and the Free State during January—February 2008.

#### **PUBLIC PARTICIPATION**

Surveys by the public are underway at Gouritzriviermond; Jeffreysbay, Hermanus, Strand and Gauteng.

#### **VIRTUAL MUSEUM**

A total of 300 entries of 60 photographers (about 700 images) have been added to the virtual museum.

To view visit the website at www,arc.agric.za see quick link SANSA/virtual museum.



Interested *Myrmarachne* sp. photographed by Hannes Mitchell

## **SOUTH AFRICA (CONTINUED)**

#### National Museum, Bloemfontein

#### Leon Lotz

- The main projects worked on at present are the ongoing revision of the genera *Cheiracanthium* (Miturgidae) and *Afrarchaea* and *Eriauchenius* (Archaeidae). New species in both these families are constantly being found.
- Projects in connection with SANSA are a survey of the Arachnids of the Bloemfontein Botanical Garden that is almost complete with about 130 species from 39 families identified for the Garden so far (mostly from 18 pittraps).
- New SANSA project to start in November 2007 is a co-project with Charles Haddad is to intensively survey gap areas of the Free State.
- Other on-going projects are the revision of the family Sicariidae
- Check-lists of the scorpions, opiliones, solifuges and pseudoscorpions of the Free State Province.



Taxonomy of the genus *Cheiracanthium* now sorted out for Africa

#### University of the Free State

#### Charles Haddad

During November – December 2006 Charles Haddad embarked on a trip to Botswana and Zambia with two students, José Parau and Ciska Jordaan, with the primary aim of collecting corinnids in some poorly sampled areas. In the Okavango Delta (Lesideng Research Camp) collecting focussed on riverine forest and arid savanna in the surrounding areas. Approximately 105 species were collected in the area. Collecting in Zambia took place in Livingstone (±40 species), Wildlives Game Farm (±80 species) and Chibila Camp near Lake Itetzi-Tetzi (±40 species). In total, 12 corinnid species were collected on the trip, many of which were collected at multiple sites, extending the ranges for most species.

Robin Lyle's M.Sc study of the Afrotropical Trachelinae is progressing well. The *Cetonana* revision is nearly complete and includes the description of 10 new species from the region. New species is *Trachelas* are continually emerging from museum material, and presently more than 30 new species have been found. Subsequent to the publication of the *Thysanina* revision (Lyle & Haddad 2006), four new species have been found and will be described in a separate paper.



Robin Lyle searching for Corinnidae

René Fourie has completed her study of the tree- and grass-dwelling spiders of the Erfenis Dam Nature Reserve in the Free State, South Africa. A total of 54 species were collected by beating from *Rhus lancea*, *R. ciliata* and *Acacia karroo*, while 84 species were collected in four different grassland types. Her results will be submitted for publication during 2008. The pitfall material from this study will be sorted during 2008 as part of a project to determine the effects of fire on ground-dwelling organisms in a grassland ecosystem.



René Fourie sorting material

The checklist of the De Hoop Nature Reserve has now been finalised and submitted for publication. A total of 275 arachnid species were recorded in this survey, with spiders the dominant group (252 species, 53 families). The guild representation suggests that fynbos faunas are similar in structure to more structurally complex biomes, such as savanna.

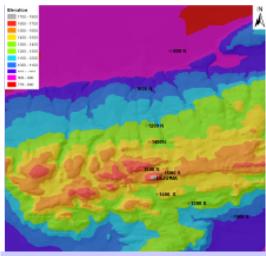
## **SOUTH AFRICA (CONTINUED)**



### Spider research at the University of Venda

#### Dr Stefan Foord

The first north-south transect across the Western Soutpansberg was completed in November-December 2006 by a team of nine that included students and lecturers from the University of Venda. Nine sites were set out at 200m altitudinal intervals (Fig. 2) and sampling included at least 16 one hour samples at each site spread over beating, sifting, sweepnetting, pitfall trapping and below and above the knee search. The scorpions have been processed, thanks to Ian Engelbrecht, and included a total of 12 species and 2 endemics, Opisthothalmus lawrencei and Hadogenes Soutpanbergensis. Grace Tshivhandekano, an honours student will analyse determinants of turnover along this transect and include three additional taxa as part of her project report: Thomisidae, Aranaeidae and Gnaphosidae. Mulalo Muelelwa is writing up her thesis that investigated spiders as surrogate measures of biodiversity. She also looked at sampling protocols to determine diversity in the Savanna biome. Eight habitats (relative homogenous within each habitat), four which were in the Blouberg Nature Reserve and the rest on the farm Little Leigh in the interior of the Western Soutpansberg, were sampled using a standardized protocol and she has subsequently identified 1953 adult spiders up to morpho-species. Planning for the 9th African Arachnological Colloquium that will be held at Lajuma in February next year is also well underway. See you in Limpopo next year.



North-South transect set out across the Soutpansberg.

## NEWS FLASHES FROM OTHER UNIVERSITIES

#### Rhodes University

A honours student Jessica Cockburn and her supervisor Prof Martin Villet at Rhodes University surveyed cave invertebrate communities to determine their composition in caves in the the Eastern Cape.

They hope to use the data collected to describe and catalogue the invertebrates (mostly insects and arachnids) found in these underground environments as a contribution to records of biodiversity countrywide, and to in this was contribute to the broader aims of the International Convention on Biodiversity.



A phyxeliid commonly collected from caves in the East-

## University of Limpopo

#### Susan Dippenaar

Under supervision of Susan Dippenaar and Ansie Dippenaar-Schoeman two students Mokgadi Modiba and Thembile Khoza have completed their MSc studies. They are re waiting for the results. Their studies were a year long survey of the biodiversity of the spiders of six habitat types using four collecting methods in the Polokwane Nature Reserve, Limpopo Province. A total of 13 854 specimens were sampled. The first paper on the results is in press.



DIPPENAAR, S., DIPPENAAR-SCHOEMAN, A. S., MODIBA, M.A. & KHOZA T.T. (in press). A checklist of spiders (Arachnida, Araneae) of the Polokwane Nature Reserve, Limpopo Province, South Africa. *Koedoe* 

Nest of Stegodyphus dumicola one of the most abundant species collected in Polokwane

## **SOUTH AFRICA (CONTINUED)**

#### University of Pretoria

#### Dr Berndt van Rensburg

Berndt is involved with Stefan Foord of the University of Venda and Ansie Dippenaar-Schoeman in a Thuthuka project of the NRF to determine the diversity of the arachnids of the Savanna Riome

- One of his MSc students Kyle Harris has completed the field work of his survey to assess and monitor local scale impacts of prickly pear (Opuntia stricta) on arthropod assemblages in the Kruger National Park, South Africa.
- Dr Kate Parr of the Oxford University Centre for the Environment has been awarded a grant from the Rufford Innovation to fund work on invertebrates and fires in savannas. This includes spiders! Theidea is that the grant will be sufficient for a bursary for a MSc student at University of Pretoria for work in Kruger and HluhluweiMfolozi park.
- Dylan Prentice is busy with his Msc looking at "The effects of altitude and vegetation on arthropod assemblage structure: using Sani Pass as a case study."

## **CapeNature**

**D**r Antoinette Veldtman is the new regional ecologist for the Boland Mountains and Cape Metro Business Units of CapeNature and she and her team are very enthusiastic to participate in SANSA and do arachnid collecting in the Western Cape. Their first samples of spiders have been forwarded to the NCA for identification.

This survey will be another important contribution to determine the arachnid biodiversity of the Western Cape Province.

Other interested persons are Rika du Plessis (manager of the Cederberg Wilderness area) and Anton Wolfaardt (regional ecologist for this area).

#### Contact: Dr Antoinette Veldtman at



Mkuzi survey team

## Spider Club of Southern Africa

#### Astri and John Leroy

- Four illustrated talks were presented to clubs and school
- Two illustrated public talks were presented at Yebo Gogga 2007, University of the Witwatersrand with the theme of "Ubuntu" as well as a talk to People for Wildlife at the Kgaswane Nature Reserve, North West Province.
- Two Spider Club, beginners' Identification Courses with lan Engelbrecht were organized at Mellville Koppies and Kloofendal Nature Reserve.
- Six spider walks with talks were organized at Pretoria National Botanical Garden (2); Walter Sisulu National Botanical Garden, Roodepoort (2); Lowveld National Botanical Gardens, Nelspruit (1) and Friends of Kloofendal.
- A radio talk was broadcast over Jacaranda 94.2 radio.
- Surveys were undertaken at the Ruimsig Entomological Reserve and Lowveld National Botanical Gardens. The sorting and data extracting data still taking place.

#### **Carol Smith**

On the 10<sup>th</sup> July 2007, Carol Smith of the Spider Club joined the Mkuzi survey team who planned to survey the area over a six weak period. The project is called Operation Wallacea. The rest of the scientist team consisted of **Xander Combrinck**, the organizer of the event, Anita Rautenbach, the Small Mammals expert, Dr Robin Brace, the Ornithologist, Jonathan Warner, the Herpetologist and three safety officers (Johnny, Dillan and Trevor). They were joined by different school groups from here and abroad. Carol was responsible for the spiders, scorpions, and a few other arachnids.

Different methods were used to collect all the different organisms. The pit fall traps consisted of a bucket placed centrally with three lines running at about 120 degree angles from each other. The lines are 30 m long and have 8 buckets each. So a total of 25 buckets were put out per site. There was 10 pitfall stations giving a total of 250 pitfall buckets. One of the massive tasks was to check every bucket every morning for arachnids, herps and small mammals.

Active searching was undertaken in the areas, like the Lebombo Mountains, a fever tree forests and sand forests, among others. On the Lebombo Mountains it was a matter of so many rocks, so little time! But the first rock turned over had a male *Hadogenes zuluanus* under it. One of the interesting spiders that was caught, while digging up a termite mound was a colourful ctenid. According to Rudy Jocque this is probably a new ctenid genus.

Carol collected 193 bottles of specimens. This included 5 scorpion species and one whip spider. The spiders still need sorting and identification

If you want to know more about them you can go onto their website ( <a href="www.opwall.com">www.opwall.com</a>) and follow the links to expeditions – South

**Spider Club** For a list of forthcoming events see their website at: www.spiderclub.co.za or contact Miemmie Prinsloo at miemmiep@d-bit.co.za

## NEW PUBLICATIONS ON AFRICAN ARACHNIDS

- **AGNARSSON, I. & CODDINGTON, J.A.** 2007. Notes on web and web plasticity and description of the male of *Achaearanea hieroglyphica* (Mello-Leitão) (Araneae, Theridiidae). *Journal of Arachnology.* **34:** 636–637.
- **ALDERWEIRELDT, M. & JOCQUé, R.** 2007. *Minicosa neptuna* n. gen., n. sp. (Araneae, Lycosidae), the smallest wolf spider from Africa. *Journal of Afrotropical Zoology* **3**: 3–9.
- BALDO, L., PRENDINI, L., CORTHALS, A. & WERREN, J. 2007. Wolbachia are present in southern African scorpions and cluster with supergroup F. Current. *Microbiology* **55**: 367–373.
- DIPPENAAR, S., **DIPPENAAR-SCHOEMAN, A. S., MODIBA, M.A. & KHOZA T.T.** (in press). A checklist of spiders (Arachnida, Araneae) of the Polokwane Nature Reserve, Limpopo Province, South Africa. *Koedoe*

#### DIPPENAAR-SCHOEMAN, A. S. & VAN HARTEN,

- **A.** 2007. Crab spiders (Araneae: Thomisidae) from mainland Yemen and the Socotra Archipelago: Part 1. The genus *Thomisus* Walckenaer, 1805. *Fauna of Saudi Arabia* **23**:169–188
- **DIPPENAAR-SCHOEMAN, A.S. & WASSENAAR, T. 2006.** A checklist of spiders from the herbaceous layer of a coastal dune forest ecosystem at Richards Bay, KwaZulu-Natal, South Africa (Arachnida: Araneae). *African Invertebrates* 47: 63–70.
- **DUNLOP, J.A., TETLIE, O.E. & PRENDINI, L.** (in press). Reinterpreting the Silurian scorpion *Proscorpius osborni* (Whitfield, 1885): Integrating data from Palaeozoic and Recent scorpions. *Palaeontology*.
- **FOORD, S.H.** (in press). Cladistic analysis of the Afrotropical Hersiliidae (Arachnida, Araneae) with the first records of *Murricia* and the description of a new genus from Madagascar. *Afrotropical Zoology*.
- FOORD, S.H., MAFADZA, M., DIPPENAAR-SCHOEMAN, A.S., & VAN RENSBURG, B.J. (in press). Spiders and conservation in the Soutpansberg, South Africa. *African Zoology*.
- **FROMHAGE, L., JACOBS, K. & SCHNEIDER, J.M.** 2007. Monogynous mating behaviour and its ecological basis in the Golden Orb Spider *Nephila fenestrata*. *Ethyology* **113**: 813–820.
- **GABRIEL**, R., GALLON, R. C. & SMITH, A. M. 2007. Examination of the *Avicularia avicularia* specimens from the Linnaean Collection. *Journal of the British Tarantula Society* 23: 22–30.
- **GRASSHOFF, M. & VAN HARTEN, A.** 2007. Orb-weaving spiders of the family Araneidae (Araneae) from mainland Yemen and the Socotra Archipelago. *Fauna of Saudi Arabia* 23: 151–162.
- **HADDAD, C. R.,** 2006. *Spinotrachelas*, a new genus of tracheline sac spiders from South Africa (Araneae: Corinnidae). *African Invertebrates* **47**: 85–93.
- **HADDAD, C.R.** (in press). A new species of *Corinnomma* (Araneae: Corinnidae) from southern and eastern Africa, with taxonomic notes on *C. olivaceum* and *C. semiglabrum. African Invertebrates*.
- HADDAD, C.R., HONIBALL, A.S., DIPPENAAR-SCHOEMAN, A.S., SLOTOW, R. & VAN RENSBURG, B.J. (under review). Spiders as indicators of elephant-induced habitat changes in endemic sand forest, Maputaland, South Africa. *African Zoology*.

- HARRIS, K.R., VAN RENSBURG, B.J., ROBERTSON, M.P., COETZEE, J.A. & DIPPENAAR-SCHOEMAN, A. S. (under review). How better to collect spiders (Araneae) in an plant invaded African savanna using the Kruger National Park as a case study. *African Entomology*
- JOHANNESEN, J., LUBIN, Y., SMITH, D. R., BILDE, T. & SCHNEIDER, J. T. 2006. The age and evolution of sociality in Stegodyphus spiders: a molecular phylogenetic perspective. Proceedings of the Royal Society of London 274: 231–237.
- **KNOFLACH, B. & VAN HARTEN, A.** 2006. The one-palped spider genera *Tidarren* and *Echinotheridion* in the Old World (Araneae, Theridiidae), with comparative remarks on *Tidarren* from America. *Journal of Natural History* **40(25-26)**:1483–1616.
- **KUNTNER, M. A.** 2007. A monograph of *Nephilengys*, the pantropical 'hermit spider' (Araneae, Nephilinae). *Systematic Entomology* **32**: 95–135.
- **KUNTNER, M. A. & LEVI, H. W.** 2007. *Nephila hirta,* a new synonym of *Eustala fuscovittata* (Araneae, Araneidae). *Journal of Arachnology* **34**: 444–447.
- **LOTZ, L. N.** 2006. Afrotropical Archaeidae: 3. The female of *Eriauchenius cornutus* and new species of *Afrarchaea* (Arachnida: Araneae) from South Africa. *Navorsinge van die Nasionale Museum Bloemfontein* **22**: 113–127.
- **LOTZ, L. N.** 2007. The genus *Cheiracantium* (Araneae: Miturgidae) in the Afrotropical region. 1. Revision of known species. *Navorsinge van die Nasionale Museum Bloemfontein* **23**: 1-76.
- **LOTZ L.N.** (in press). Revision of the Afrotropical genus *Cheira-canthium* (Araneae: Miturgidae: Eutichurinae): 2. new species. *Navorsinge van die Nasionale Museum Bloemfontein*
- **LOVELL, S., HAMER, M., SLOWTOW, R. & HERBERT, D.** 2007. Assessment of congruency across invertebrate taxa and taxonomic levels to identify potential surrogates. *Biological Conservation* **139**: 113–125.
- LYLE, R. & HADDAD, C.R. (in press). A revision of the Afrotropical tracheline sac spider genus *Thysanina* Simon, 1910 (Araneae: Corinnidae). *African Invertebrates*.
- **MANDISA**, P.M., **SOMERS M.J. & DIPPENAAR-SCHOEMAN**, **A.S.** (in press). Spider responses to alien plant invasion: the effect of short- and long-term *Chromolaena odorata* invasion and alien clearing. *Journal of Applied Ecology*
- **MILLER, J. A.** 2007. Synaphridae of Madagascar (Araneae: Araneoidea): a new family record for the Afrotropical region. *Proceedings of the California Academy of Science* **58**: 21–48.
- **MURPHY**, **J. & RUSSEL-SMITH**, **A.** 200 7. A revision of the spider genus *Echemella* Strand 1906 (Araneae, Gnaphosidae). *Journal of Afrotropical Zoology* **3**: 15-22.
- **PENNEY, D.** in press. Possible anti-predator function for the stabilimentum in a West African (Bijilo Forest, The Gambia) *Cyclosa* (Araneae, Araneidae). *J. Afrotrop. Zool.*
- **PLATNICK, N.I. & BIRD, T.L.** 2007. On the first African spiders of the subfamily Molycrinae (Araneae, Prodidomidae). *American Museum Novitates* **3552**: 1–8.
- **PLATNICK, N. I. & UBICK, D.,** 2007. A revision of the spider genus *Zoroctrates* Simon (Araneae, Zorocratidae). *American Museum of Natural History* **3579**:1-44.
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## **NEW PUBLICATIONS (CONTINUED)**

RHEIMS, C. A., SANTOS A. J. & VAN HARTEN, A. 2007. The spider genus *Uroctea* Dufour, 1820 (Araneae: Oecobiidae) in Yemen. *Zootaxa* **1406**: 61–68.

RUSSELL-SMITH, A.; ALDERWEIRELDT, M. & JOCQUÉ, R., 2006. On the new genus *Foveosa* accommodating the Afrotropical wolf spiders related to *Pardosa foveolata* (Araneae: Lycosidae). *Journal of Afrotropical Zoology* **3**: 59–76

**SANTOS, A. J. & VAN HARTEN, A.**, 2007. On the funnel-weaver spiders from Yemen (Araneae: Agelenidae). *Fauna of Saudi Arabia* **23**:163–168.

SILVA, D. D. 2007. *Mahafalytenus*, a new spider genus from Madagascar (Araneae, Ctenidae). *Proceedings of the California Academy of Science* **58**: 59–98.

UYS, C. HAMER, M. & SLOWTOW, R. 2007. Effect of burn area on invertebrate recolonization in grasslands in the Drakensberg, South Africa. *African Zoology* 41: 51–65.

VASCONCELLOS-NETO J., ROMERO G.O., SANTOS A.J. & DIPPENAAR-SCHOEMAN, A.S. 2007. Species of the genus *Peucetia* (Arachnida: Araneae: Oxyopidae) associated with plants bearing glandular hairs. *Biotropica* 83:

**VIGNOLI, V. & PRENDINI, L.** (in press). A new species of *Akentrobuthus* Lamoral, 1976 (Scorpiones: Buthidae) from the Republic of Benin. *Journal of Afrotropical Zoology*.

**WESOLOWSKA, W.,** 2006. A new species of *Cyrba* from South Africa (Araneae: Salticidae: Sparteinae). *Genus* **17(4)**: 617-620

**WESOLOWSKA, W.,** 2006. A new genus of ant-mimicking Salticid spider from Africa (Araneae: Salticidae: Leptorchestinae). *Annales Zoologici* **56**: 435-439

**WESOLOWSKA, W. & VAN HARTEN, A.,** 2007. Additions to the knowledge of jumping spiders (Araneae: Salticidae) of Yemen. *Fauna of Saudi Arabia* **23**:189-269.

**WIRKNER, C.S. & PRENDINI, L.** 2007. Comparative morphology of the hemolymph vascular system in scorpions – a survey using corrosion casting, MicroCT and 3D- reconstruction. *Journal of Morphology* 268: 401–413.

## **CONGRESS IN BRAZIL**

## CONTRIBUTIONS DEALING WITH RESEARCH IN AFRICA

Bird, T., A. Hoffman & U. Zeller. Effects of different grazing intensities on spiders in southern Nambia.

Corronca, J.A, Taxonomical revision of *Anyphops* Benoit (Araneae: Selenopidae) and new genera of selenopids to Afrotropical Region.

De Bakker, D., W. Fannes, K. Loosveldt & R. Jocqué. On the importance of Oonopidae (Araneae) in the canopy of Afrotropical rainforest and savanna trees. Dippenaar-Schoeman, A.S. The present status of the African Thomisidae.

Dippenaar-Schoeman, AS.; A X. Gonzalez Reyes & M.S. Harvey, Present status of the Solifugae (sun-spiders) of South Africa.

Dippenaar-Schoeman, A.S. & Haddad, C.R., The South African National Survey of Arachnida (SANSA): the first ten years. Dippenaar-Schoeman, AS., C.R. Haddad & A.M. van den Berg. Spiders, the African farmers best friend.

Dippenaar-Schoeman, AS.; A.M. van den Berg & P.R. Stephen, spiders in citrus orchards in South Africa (Arachnida: Araneae).

Esposito, L.A & L. Prendini. Phylogeny of the Southern African thick-tail scorpion genus *Parabuthus* Pocock (Buthidae), based on morphology and DNA.

Fannes, W. & R. Jocque, Ultrastructure of a new, ant-mimicking genus of Afrotropical Oonopidae (Araneae) with complex internal genitalia.

Foord, S.H.,A.S. Dippenaar-Schoeman, R.J. Van Rensburg & C.R. Haddad, Preliminary patterns of spider (Araneae) diversity in the Savanna Biome of South Africa.

Foord, S.H., M.M. Mafadza, B.J. Van Rensburg & A.S. Dippenaar-Schoeman. Small--Scale heterogeneity of spider (Araneae) species composition and assemblage structure in the Soutpansberg, South Africa: implications for conservation.

Haddad, C.R., A.S. Dippenaar-Schoeman & M. Cumming. Termitophily and termitophagy in spiders: an African phenomenon?

Haddad, C.R. & A. Russell-Smith. A comparison of spider diversity patterns in the Mkomazi Game Reserve, Tanzania and the Ndumo Game Reserve, South Africa (Araneae).

Kuntner, M. Genital evolution and mating strategies in nephilid spiders.

Lotz, L.N. The Archaeidae of southern Africa.

Mattoni, C.I. & L. Prendini. Phylogeny and biogeography of the family Bothriuridae (Scorpiones).

Michalik, P. & T. Bird. Male strategies in the reproduction of the Golden orb- web Nephila senegalensis (Nephilidae, Araneae) with notes to spermatozoa and their phylogenetic implications.

Prendini, L. & E.S. Volschenk. Dynamic homology and the evolution of scorpion trichobothriotaxy

Striffler, B.P. phylogeny of the Afrotropical scorpion genus *Pandinus* Thorell 1876-Eastern African species.

Wood, H.M. Archaeids of Madagascar.

#### ANOTHER INTERESTING NEW PAPER

RAMÍREZ, M.J., CODDINGTON, J.A., MADDISON, W.P., MIDFORD, P., PRENDINI, L., MILLER, J., GRISWOLD, C.E., HORMIGA, G., SIERWALD, P., SCHARFF, N., BENJAMIN, S.P. & WHEELER, W.C. 2007. Linking of digital images to phylogenetic data matrices using a morphological ontology. *Systematic Biology* 56: 283–294.

# Best wishes for 2008



Spider collage by Allen Jones