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# A Spirostreptida-Mesostigmata association in the savanna: more mites are on males

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# Introduction

- Spirostreptida in southern Africa
- Summer rainfall: feed and mate

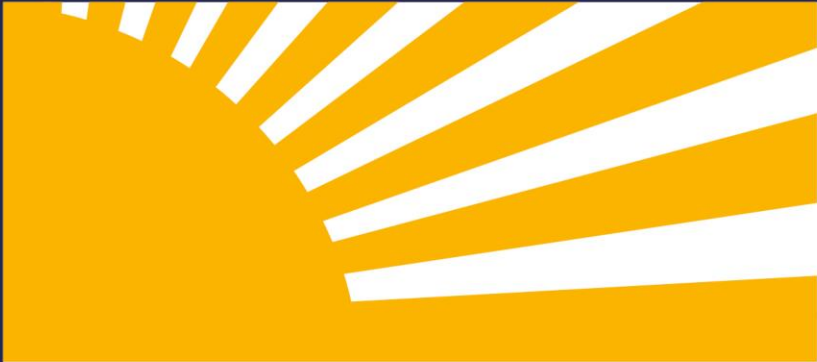




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- Millipede-mite association
- *Neomegistus julidicola-Doratogonus cristulatus*





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- Phoretic and parasitic associations





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- Associations and host preference?
- Preference of males: seminal fluids feeding?
- More surveys in diverse habitats





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# Question 1

- Are adult mites abundant on males of *Doratogonus rugifrons*?

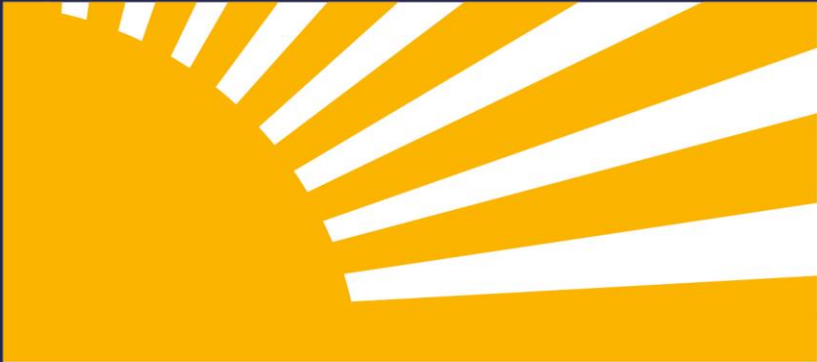


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## Question 2

- Are adult mites abundant on the anterior rather than posterior half of body?





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## Question 3

- How widespread are millipede-mite associations?



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## How?

- Survey of *Neomegistus julidicola* on *D. rugifrons*
- *Vachellia sieberiana* primary woodland
- *D. rugifrons* dominant
- Other surveys





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- Active searching: 8 x 100 m by 2 m
- Millipedes: sex, position and count adult mites
- Handling time





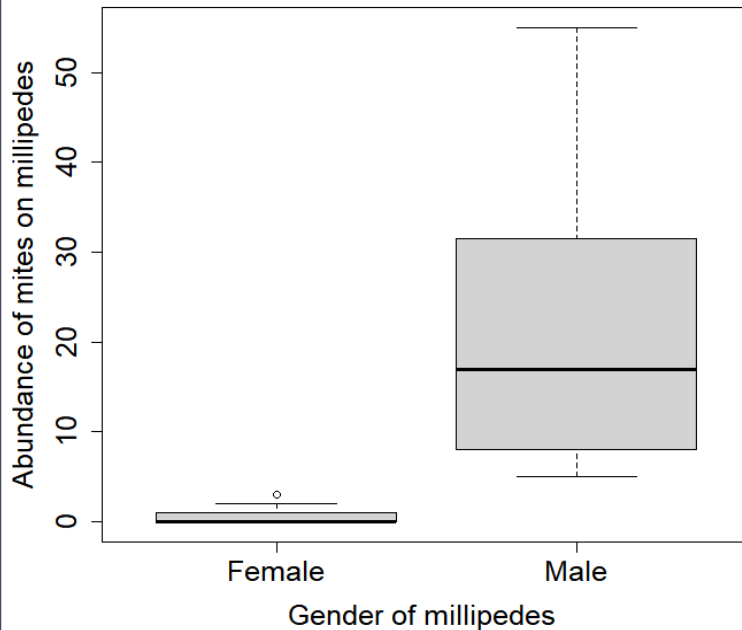
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# Results & Discussion



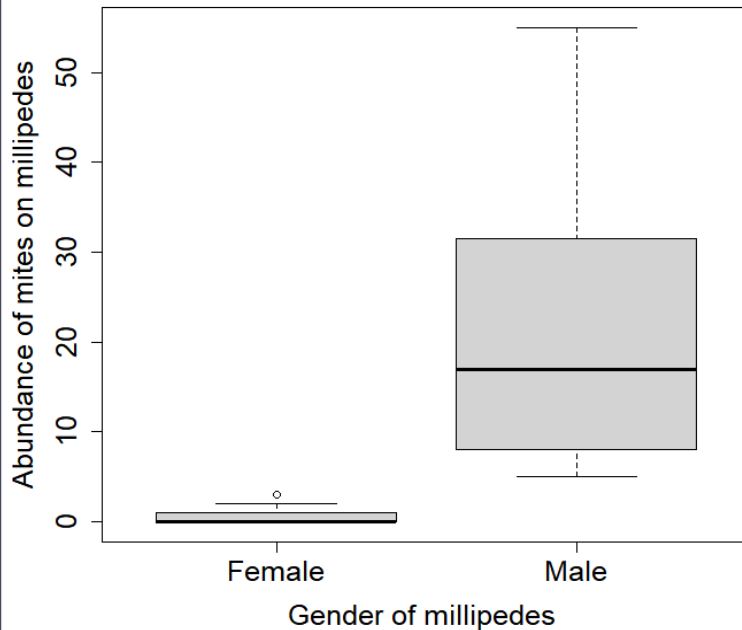
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- Mites feed on seminal fluids?
- Spermophagy not recorded
- Mites on females
- Mites to females during mating





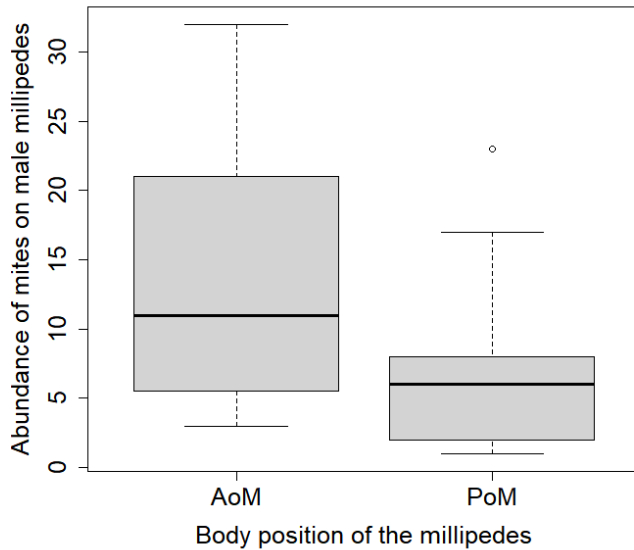
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- Phoretic association
- Greater mobility of males
- Males better phoretic hosts
- New records support



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- Anterior: seminal fluid feeding hypothesis?
- Kleptoparasitism?



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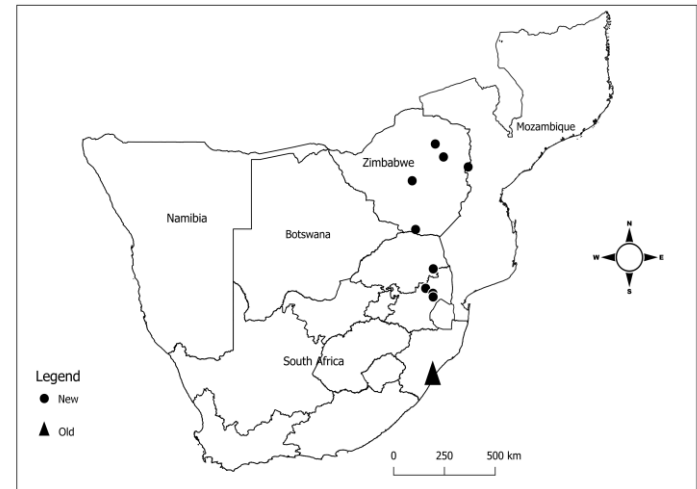
- Associations widespread

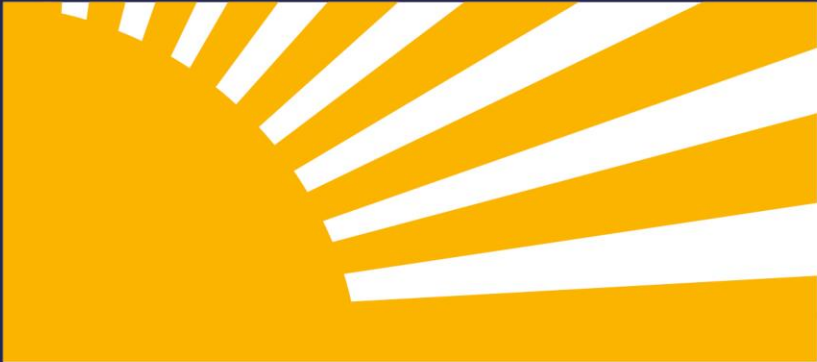
Zimbabwe:

- *Doratogonus uncinatus*; *D. rhodesianus*; *Cacuminostreptus vumbaensis*; *Spirostreptus kruegeri*

South Africa:

- *D. flavifilis*; *Zinophora* sp.



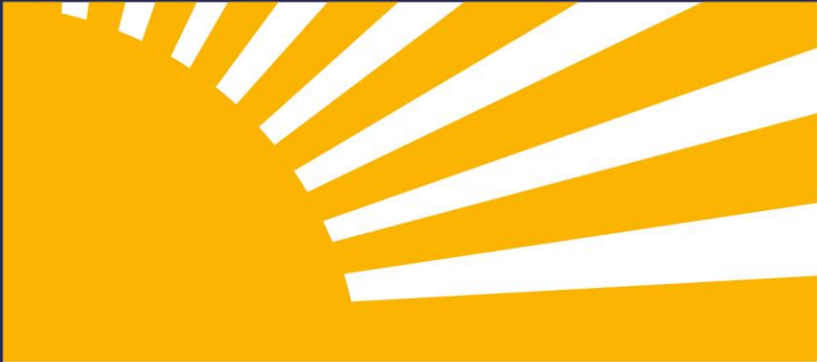


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## Conclusion

- Associations are widespread
- More discoveries as habitats are surveyed
- Future studies may explain preference





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# Acknowledgements

- Research Assistants
- University Mpumalanga