

# SECOND POLAR MOMENTS OF INERTNESS ARE RELATED TO SPECIES RICHNESS IN FOREST RED MILLIPEDES *CENTROBOLUS* COOK, 1897

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**Abstract-** Male and female second polar moments of area were correlated with species richness in red millipedes *Centrobolus*. Second polar moments of area were correlated with species richness in males (T score=1.960383, d.f.=20, p=0.032015) and not in females (T-score=-0.113918, d.f.=20, p=0.455219). Second polar moments of inertia in males at high species richness were 975.750969 mm<sup>4</sup> and at low species richness were 585.790635 mm<sup>4</sup>. Second polar moments of inertia in females at high species richness were 2187.284847 mm<sup>4</sup> and at low species richness were 2318.579997 mm<sup>4</sup>.

**Keywords:** Polar, Area, SSD, Red Millipedes

## I. INTRODUCTION

Red millipedes are found in the southern African subregion with northern limits on the east coast being about -17° latitude S and southern limits being -35° latitude S. They are well represented in the littoral forests of the eastern half of the subcontinent [1-300]. It consists of taxonomically important species with 12 species considered threatened and includes nine vulnerable and three endangered species [226]. It occurs in all the forests of the coastal belt from the Cape Peninsula to Beira in Mocambique [225]. These worm-like millipedes have female-biased sexual size dimorphism [57]. Here, second polar moments of inertia for females are correlated with species richness in *Centrobolus* Cook, 1897.

## II. MATERIALS AND METHODS

Horizontal tergite width measurements for 22 species of southern African *Centrobolus* were obtained from published material [57]. These were halved to get radii (r). The second polar moments of area (mm<sup>4</sup>) were calculated based on the equation  $\pi/2.r^4$  for females (Appendix 1). A test between second polar moments of area with species richness was generated at <https://www.gigacalculator.com/calculators/p-value-significance-calculator.php>. Tests for normality

were conducted at <https://www.statskingdom.com/kolmogorov-smirnov-test-calculator.html>.

## III. RESULTS

Second polar moments of area were correlated with species richness in males (T score=1.960383, d.f.=20, p=0.032015) and not in females (T-score=-0.113918, d.f.=20, p=0.455219). Second polar moments of inertia in males at high species richness were 975.750969 mm<sup>4</sup> and at low species richness were 585.790635 mm<sup>4</sup>. Second polar moments of inertia in females at high species richness were 2187.284847 mm<sup>4</sup> and at low species richness were 2318.579997 mm<sup>4</sup>.

## IV. DISCUSSION

The significant differences between males and females in second polar moments of area are known in this genus. There is a correlation between male second polar moments of area and species richness is given. This is an addition to one of the many correlated with body size in millipedes. An alternative calculation including body length is another option in calculating the second polar moments of area in these millipedes with cylindrical body shapes.

## REFERENCES

- [1] O. F. Cook, "New relatives of *Spirobolus giganteus*," *Brandtia* (A series of occasional papers on Diplopoda and other Arthropoda), vol. 18, pp. 73-75, 1897.
- [2] M. COOPER, "Sperm competition in the millipede *Chersastus ruber* (Diplopoda: Pachybolidae)," The University of Cape Town, pp. 1-29, 1995.
- [3] M. I. Cooper, S. R. Telford, "Sperm competition in three *Chersastus* millipedes (Diplopoda, Trigonulidae)," 26th Symposium of the Zoological Society of Southern Africa (Integrating Zoology: Subdisciplines and the Subcontinent), University of Pretoria, Pretoria, 8-12 July, p. 13, 1996. ISBN: 1-86854-059-6..
- [4] M. I. Cooper, "Ectoparasite-mediated sexual selection in spirobolid millipedes," In: Robertson, Hamish (ed.)

- Proceedings of the joint congress of the Entomological Society of Southern Africa (11th congress) and the African Association of Insect Scientists (12th congress), Stellenbosch, 30 June-4 July, pp. 223-224, 1997. ISBN : WISC:89058769605. (poster).
- [5] M. I. Cooper, "Indiscriminate male mating behaviour in spirobolid millipedes," 27th Symposium of the Zoological Society of Southern Africa, University of Cape Town, Cape Town, 7-11 July, p. 105, 1997.
- [6] M. Cooper, "MILLIPEDES AND THE "MINIATURE FIVE MILLION"," African Wildlife, vol. 52, no. 5, pp. 30-31, 1998..
- [7] M. I. COOPER, "MATING DYNAMICS OF SOUTH AFRICAN FOREST MILLIPEDES CENTROBOLUS (DIPLOPODA: PACHYBOLIDAE)," THE UNIVERSITY OF CAPE TOWN, pp. 1-141, 1998. <https://hdl.handle.net/11427/17555>.
- [8] M. Cooper, "Sexual selection in sympatric spirobolid millipedes," 28th Symposium of the Zoological Society of Southern Africa, University of Cape Town, 1998. (poster).
- [9] M. I. Cooper, M. A. du Plessis, "Biodiversity hotspots in the developing world," Trends in Ecology & Evolution, vol. 13, no. 10, pp. 409, 1998. ISSN 0169-5347, [https://doi.org/10.1016/S0169-5347\(98\)01469-4](https://doi.org/10.1016/S0169-5347(98)01469-4).
- [10] M. Cooper, "P2 or not P2?" 29th Symposium of the Zoological Society of Southern Africa, University of the North, Limpopo Province, July, 1999. (poster).
- [11] M. I. Cooper, S. R. Telford, "Copulatory Sequences and Sexual Struggles in Millipedes," Journal of Insect Behavior vol. 13, pp. 217-230, 2000. <https://doi.org/10.1023/A:1007736214299>.
- [12] M. I. Cooper, "Sex ratios, mating frequencies and relative abundance of sympatric millipedes in the genus Chersastus (Diplopoda: Pachybolidae)," Arthropods, vol. 3, no. 4, pp. 174-176, 2014.
- [13] M. I. Cooper, "Sexual size dimorphism and corroboration of Rensch's rule in Chersastus millipedes (Diplopoda: Pachybolidae)," J. Entomol. Zool. Stud. vol. 2, no. 6, pp. 264-266, 2014. DOI: 10.22271/j.ento.2014.v2.i6e.452 <http://www.entomoljournal.com/archives/2014/vol2issue6/PartE/47.pdf>.
- [14] M. I. Cooper, "Competition affected by re-mating interval in a myriapod," J. Entomol. Zool. Stud. vol. 3, no. 4, pp. 77-78, 2015. DOI: 10.22271/j.ento.2015.v3.i4b.550 <http://www.entomoljournal.com/archives/2015/vol3issue4/PartB/3-4-3.pdf>.
- [15] M. I. Cooper, "Elaborate gonopods in the myriapod genus Chersastus (Diplopoda: Trigonulidae)," J. Entomol. Zool. Stud. vol. 3, no. 4, pp. 235-238, 2015. DOI: 10.22271/j.ento.2015.v3.i4d.573 <http://www.entomoljournal.com/archives/2015/vol3issue4/PartD/3-3-110.pdf>.
- [16] M. I. Cooper, "Sperm storage in Centrobolus spp. and observational evidence for egg simulation," J. Entomol. Zool. Stud. vol. 4, no. 1, pp. 127-129, 2016. DOI: 10.22271/j.ento.2016.v4.i1b.797 <https://www.entomoljournal.com/archives/2016/vol4issue1/PartB/3-6-81.pdf>.
- [17] M. I. Cooper, "Symmetry in ejaculate volumes of Centrobolus inscriptus Attems (Spiroboidea: Trigonulidae)," International Journal of Entomological Research, vol. 1, no. 2, pp. 14-15, 2016. <http://www.entomologyjournals.com/archives/2016/vol1/issue2>.
- [18] M. I. Cooper, "Confirmation of four species of Centrobolus Cook (Spirobolida: Trigonulidae) based on gonopod ultrastructure," Int. J. Entomol. Res. vol. 1, no. 3, pp. 07-09, 2016. <http://www.entomologyjournals.com/archives/2016/vol1/issue3>.
- [19] M. I. Cooper, "Fire millipedes obey the female sooner norm in cross mating Centrobolus (Myriapoda)," J. Entomol. Zool. Stud. vol. 4, no. 1, pp. 173-174, 2016. DOI: 10.22271/j.ento.2016.v4.i1c.802 <http://www.entomoljournal.com/archives/2016/vol4issue1/PartC/3-5-82.pdf>.
- [20] M. I. Cooper, "Symmetry in ejaculate volumes of Centrobolus inscriptus Attems (Spiroboidea: Trigonulidae)," J. Entomol. Zool. Stud. vol. 4, no. 1, pp. 386-387, 2016. DOI: 10.22271/j.ento.2016.v4.i1f.833 <http://www.entomoljournal.com/archives/2016/vol4issue1/PartF/4-1-21.pdf>.
- [21] M. I. Cooper, "Instantaneous insemination in the millipede Centrobolus inscriptus (Spirobolida: Trigonulidae) determined by artificially-terminated mating," J. Entomol. Zool. Stud. vol. 4, no. 1, pp. 487-490, 2016. DOI: 10.22271/j.ento.2016.v4.i1g.847 <http://www.entomoljournal.com/archives/2016/vol4issue1/PartG/4-1-50-695.pdf>.
- [22] M. I. Cooper, "Gonopod mechanics in Centrobolus Cook (Spirobolida: Trigonulidae) II. Images," J. Entomol. Zool. Stud. vol. 4, no. 2, pp. 152-154, 2016. DOI: 10.22271/j.ento.2016.v4.i2c.890 <http://www.entomoljournal.com/archives/2016/vol4issue2/PartC/4-2-55.pdf>.
- [23] M. Cooper, "Post-insemination associations between males and females in Diplopoda," J. Entomol. Zool. Stud. vol. 4, no. 2, pp. 283-285, 2016. DOI: 10.22271/j.ento.2016.v4.i2d.908 <http://www.entomoljournal.com/archives/2016/vol4issue2/PartD/4-2-63.pdf>.
- [24] M. I. Cooper, "Heavier-shorter-wider females in the millipede Centrobolus inscriptus Attems (Spirobolida: Trigonulidae)," J. Entomol. Zool. Stud. vol. 4, no. 2, pp. 509-510, 2016. DOI: 10.22271/j.ento.2016.v4.i2g.937 <http://www.entomoljournal.com/archives/2016/vol4issue2/PartG/4-3-60.pdf>.
- [25] M. I. Cooper, "Sexual bimaturism in the millipede Centrobolus inscriptus Attems (Spirobolida: Trigonulidae)," J. Entomol. Zool. Stud. vol. 4, no. 3, pp. 86-87, 2016. DOI: 10.22271/j.ento.2016.v4.i3b.961 <http://www.entomoljournal.com/archives/2016/vol4issue3/PartB/4-3-44.pdf>.
- [26] M. I. Cooper, "Tarsal pads of Centrobolus Cook (Spiroboidea: Trigonulidae)," J. Entomol. Zool. Stud. vol. 4, no. 3, pp. 385-386, 2016. DOI: 10.22271/j.ento.2016.v4.i3f.1008 <http://www.entomoljournal.com/archives/2016/vol4issue3/PartF/4-3-40-751.pdf>.
- [27] M. I. Cooper, "Confirmation of four species of Centrobolus Cook (Spirobolida: Trigonulidae) based on gonopod ultrastructure," J. Entomol. Zool. Stud. vol. 4, no. 4, pp. 389-391, 2016. DOI: 10.22271/j.ento.2016.v4.i4f.1065

- <http://www.entomoljournal.com/archives/2016/vol4issue4/PartF/4-3-118-307.pdf>.
- [28] M. I. Cooper, "Sperm storage in *Centrobolus inscriptus* Attems (Spirobolida: Trigonulidae)," *J. Entomol. Zool. Stud.* vol. 4, no. 4, pp. 392-393, 2016. DOI: 10.22271/j.ento.2016.v4.i4f.1066  
<http://www.entomoljournal.com/archives/2016/vol4issue4/PartF/4-4-16-207.pdf>.
- [29] M. I. Cooper, "Sperm dumping in *Centrobolus inscriptus* Attems (Spirobolida: Trigonulidae)," *J. Entomol. Zool. Stud.* vol. 4, no. 4, pp. 394-395, 2016. DOI: 10.22271/j.ento.2016.v4.i4f.1067  
<http://www.entomoljournal.com/archives/2016/vol4issue4/PartF/4-4-17-663.pdf>.
- [30] M. I. Cooper, "Syncopulatory mate-guarding affected by predation in the aposematic millipede *Centrobolus inscriptus* in a swamp forest," *J. Entomol. Zool. Stud.* vol. 4, no. 6, pp. 483-484, 2016. DOI: 10.22271/j.ento.2016.v4.i6g.1376  
<http://www.entomoljournal.com/archives/2016/vol4issue6/PartG/4-6-114-767.pdf>.
- [31] M. I. Cooper, "The relative sexual size dimorphism of *Centrobolus inscriptus* compared to 18 congeners," *J. Entomol. Zool. Stud.* vol. 4, no. 6, pp. 504-505, 2016. DOI: 10.22271/j.ento.2016.v4.i6g.1381  
<http://www.entomoljournal.com/archives/2016/vol4issue6/PartG/4-6-123-254.pdf>.
- [32] M. I. Cooper, "Do females control the duration of copulation in the aposematic millipede *Centrobolus inscriptus*?" *J. Entomol. Zool. Stud.* vol. 4, no. 6, pp. 623-625, 2016. DOI: 10.22271/j.ento.2016.v4.i6i.1396  
<http://www.entomoljournal.com/archives/2016/vol4issue6/PartI/4-6-133-214.pdf>.
- [33] M. I. Cooper, "The influence of male body mass on copulation duration in *Centrobolus inscriptus* (Attems)," *J. Entomol. Zool. Stud.* vol. 4, no. 6, pp. 804-805, 2016. DOI: 10.22271/j.ento.2016.v4.i6k.08  
<http://www.entomoljournal.com/archives/2016/vol4issue6/PartK/4-6-166-899.pdf>.
- [34] M. I. Cooper, "Sexual conflict over the duration of copulation in *Centrobolus inscriptus* (Attems)," *J. Entomol. Zool. Stud.* vol. 4, no. 6, pp. 852-854, 2016. DOI: 10.22271/j.ento.2016.v4.i6l.04  
<http://www.entomoljournal.com/archives/2016/vol4issue6/PartL/4-6-155-599.pdf>.
- [35] M. I. Cooper, "The affect of female body width on copulation duration in *Centrobolus inscriptus* (Attems)," *J. Entomol. Zool. Stud.* vol. 5, no. 1, pp. 732-733, 2017. DOI: 10.22271/j.ento.2017.v5.i1j.10  
<http://www.entomoljournal.com/archives/2017/vol5issue1/PartJ/5-1-92-221.pdf>.
- [36] M. I. Cooper, "Size matters in myriapod copulation," *J. Entomol. Zool. Stud.* vol. 5, no. 2, pp. 207-208, 2017. DOI: 10.22271/j.ento.2017.v5.i2c.10  
<http://www.entomoljournal.com/archives/2017/vol5issue2/PartC/4-6-108-171.pdf>.
- [37] M. I. Cooper, "Relative sexual size dimorphism in *Centrobolus digrammus* (Pocock) compared to 18 congeners," *J. Entomol. Zool. Stud.* vol. 5, no. 2, pp. 1558-1560, 2017. DOI: 10.22271/j.ento.2017.v5.i2u.04  
<http://www.entomoljournal.com/archives/2017/vol5issue2/PartU/5-2-199-639.pdf>.
- [38] M. I. Cooper, "Relative sexual size dimorphism in *Centrobolus fulgidus* (Lawrence) compared to 18 congeners," *J. Entomol. Zool. Stud.* vol. 5, no. 3, pp. 77-79, 2017. DOI: 10.22271/j.ento.2017.v5.i3b.01  
<http://www.entomoljournal.com/archives/2017/vol5issue3/PartB/5-2-198-656.pdf>.
- [39] Cooper, "Relative sexual size dimorphism *Centrobolus ruber* (Attems) compared to 18 congeners," *J. Entomol. Zool. Stud.* vol. 5, no. 3, pp. 180-182, 2017. DOI: 10.22271/j.ento.2017.v5.i3c.07  
<http://www.entomoljournal.com/archives/2017/vol5issue3/PartC/5-2-187-598.pdf>.
- [40] M. I. Cooper, "Copulation and sexual size dimorphism in worm-like millipedes," *J. Entomol. Zool. Stud.* vol. 5, no. 3, pp. 1264-1266, 2017. DOI: 10.22271/j.ento.2017.v5.i3r.03 available at <https://www.coursehero.com/file/56889696>.
- [41] M. I. Cooper, "Allometry of copulation in worm-like millipedes," *J. Entomol. Zool. Stud.* vol. 5, no. 3, pp. 1720-1722, 2017. DOI: 10.22271/j.ento.2017.v5.i3x.03  
<http://www.entomoljournal.com/archives/2017/vol5issue3/PartX/5-3-233-698.pdf>.
- [42] M. Cooper, "Re-assessment of Rensch's rule in *Centrobolus*," *J. Entomol. Zool. Stud.* vol. 5, no. 6, pp. 2408-2410, 2017. DOI: 10.22271/j.ento.2017.v5.i6ag.04  
<http://www.entomoljournal.com/archives/2017/vol5issue6/PartAG/5-6-355-856.pdf>.
- [43] M. I. Cooper, "Allometry for sexual dimorphism in millipedes (Diplopoda)," *J. Entomol. Zool. Stud.* vol. 6, no. 1, pp. 91-96, 2018. DOI: 10.22271/j.ento.2018.v6.i1b.03  
<http://www.entomoljournal.com/archives/2018/vol6issue1/PartB/5-6-327-547.pdf>.
- [44] M. I. Cooper, "Sexual dimorphism in pill millipedes (Diplopoda)," *J. Entomol. Zool. Stud.* vol. 6, no. 1, pp. 613-616, 2018. DOI: 10.22271/j.ento.2018.v6.i1i.03  
<http://www.entomoljournal.com/archives/2018/vol6issue1/PartI/5-6-352-508.pdf>.
- [45] M. I. Cooper, "Sexual size dimorphism and the rejection of Rensch's rule in Diplopoda (Arthropoda)," *J. Entomol. Zool. Stud.* vol. 6, no. 1, pp. 1582-1587, 2018. DOI: 10.22271/j.ento.2018.v6.i1v.07  
<http://www.entomoljournal.com/archives/2018/vol6issue1/PartV/5-6-290-837.pdf>.
- [46] M. I. Cooper, "Trigonulid size dimorphism breaks Rensch," *J. Entomol. Zool. Stud.* vol. 6, no. 3, pp. 1232-1234, 2018. DOI: 10.22271/j.ento.2018.v6.i3.9.09  
<http://www.entomoljournal.com/archives/2018/vol6issue3/PartO/6-3-170-722.pdf>.
- [47] M. I. Cooper, "Volumes of *Centrobolus albitarsus* (Lawrence, 1967)," *Int. J. Entomol. Res.* vol. 3, no. 4, pp. 20-21, 2018.  
<http://www.entomologyjournals.com/archives/2018/vol3/issue4>.
- [48] M. Cooper, "A review of studies on the fire millipede genus *centrobolus* (diplopoda: trigoniulidae)," *J. Entomol. Zool. Stud.* vol. 6, no. 4, pp. 126-129, 2018. DOI: 10.22271/j.ento.2018.v6.i4.2.06  
<http://www.entomoljournal.com/archives/2018/vol6issue4/PartC/6-3-87-275.pdf>.
- [49] M. Cooper, "*Centrobolus anulatus* (Attems, 1934) reversed sexual size dimorphism," *J. Entomol. Zool. Stud.* vol. 6, no. 4, pp. 1569-1572, 2018. DOI:

- 10.22271/j.ento.2018.v6.i4.13.16  
<http://www.entomoljournal.com/archives/2018/vol6issue4/PartZ/6-4-277-483.pdf>.
- [50] M. Cooper, "Allometry in *Centrobolus*," J. Entomol. Zool. Stud. vol. 6, no. 6, pp. 284-286, 2018. DOI: 10.22271/j.ento.2018.v6.i6.3.07  
<http://www.entomoljournal.com/archives/2018/vol6issue6/PartE/6-5-322-417.pdf>.
- [51] M. Cooper, "Centrobolus size dimorphism breaks Rensch's rule," Scholars' Press, Mauritius. pp. 1-48, 2018. ISBN: 978-3-659-83990-0. <https://www.academia.edu/77887053>.
- [52] M. Cooper, "Centrobolus size dimorphism breaks Rensch's rule," Arthropod., vol. 7, no. 3, pp. 48-52, 2018.
- [53] M. Cooper, "Centrobolus dubius (Schubart, 1966) Monomorphism," International Journal of Research Studies in Zoology, vol 4, no. 3, pp. 17-21, 2018. <http://arcjournals.org/pdfs/ijrsz/v4-i3/3.pdf>.
- [54] M. Cooper, "Centrobolus lawrencei (Schubart, 1966) monomorphism," Arthropod., vol. 7, no. 4, pp. 82-86, 2018. [http://www.iaees.org/publications/journals/arthropods/articles/2018-7\(4\)/Centrobolus-lawrencei-monomorphism.pdf](http://www.iaees.org/publications/journals/arthropods/articles/2018-7(4)/Centrobolus-lawrencei-monomorphism.pdf).
- [55] M. Cooper, "Confirmation of twenty-one species of *Centrobolus* Cook (Diplopoda: Pachybolidae) based on length and width data," 2018.
- [56] M. Cooper, "Centrobolus sagatinus sexual size dimorphism based on differences in horizontal tergite widths," J. Entomol. Zool. Stud. vol. 6, no. 6, pp. 275-277, 2018. DOI: 10.22271/j.ento.2018.v6.i6.3.05  
<http://www.entomoljournal.com/archives/2018/vol6issue6/PartE/6-5-323-505.pdf>.
- [57] M. Cooper, "Centrobolus silvanus dimorphism based on tergite width," Glob. J. Zool. vol. 3, no. 1, pp. 003-005, 2018. <https://doi.org/10.17352/gjz.000010>.
- [58] M. Cooper, "A review on studies of behavioural ecology of *Centrobolus* (Diplopoda, Spirobolida, Pachybolidae) in southern Africa," Arthropod., vol. 8, no. 1, pp. 38-44, 2019.
- [59] M. I. Cooper, "Lawrence's red millipede *Centrobolus lawrencei* shows length-based variability and size dimorphism," J. Entomol. Zool. Stud. vol. 7, no. 2, pp. 1037-1039, 2019. DOI: 10.22271/j.ento.2019.v7.i2.9.07  
<http://www.entomoljournal.com/archives/2019/vol7issue2/PartO/7-2-114-662.pdf>.
- [60] M. Cooper, "Centrobolus titanophilus size dimorphism shows width-based variability," Arthropod., vol. 8, no. 2, pp. 80-86, 2019.
- [61] M. Cooper, "Non-significant intersexual differences in millipede mass," J. Entomol. Zool. Stud. vol. 7, no. 3, pp. 763-765, 2019. DOI: 10.22271/j.ento.2019.v7.i3m.5267  
<http://www.entomoljournal.com/archives/2019/vol7issue3/PartM/7-3-90-458.pdf>.
- [62] M. I Cooper, "Quasi-experimental determination of a mass standard in the forest millipede *Centrobolus inscriptus*," J. Entomol. Zool. Stud. vol. 7, no. 3, pp. 772-774, 2019. DOI: 10.22271/j.ento.2019.v7.i3m.5269  
<http://www.entomoljournal.com/archives/2019/vol7issue3/PartM/7-3-58-913.pdf>.
- [63] M. I. Cooper, "Underlying sperm precedence pattern in the millipede *Centrobolus inscriptus* (Attems, 1928) (Diplopoda, Pachybolidae)," J. Entomol. Zool. Stud. vol. 7, no. 3, pp. 1066-1069, 2019. DOI: 10.22271/j.ento.2019.v7.i3r.5319  
<http://www.entomoljournal.com/archives/2019/vol7issue3/PartR/7-3-106-957.pdf>.
- [64] M. Cooper, "When is the change in sperm precedence in the millipede *Centrobolus inscriptus*(Attems, 1928) (Diplopoda, Pachybolidae)?" J. Entomol. Zool. Stud. vol. 7, no. 4, pp. 183-186, 2019. DOI: 10.22271/j.ento.2019.v7.i4c.5439  
<http://www.entomoljournal.com/archives/2019/vol7issue4/PartC/7-3-311-692.pdf>.
- [65] M. Cooper, "Julid millipede and spirobolid millipede gonopod functional equivalents," J. Entomol. Zool. Stud. vol. 7, no. 4, pp. 333-335, 2019. DOI: 10.22271/j.ento.2019.v7.i4f.5465  
<http://www.entomoljournal.com/archives/2019/vol7issue4/PartF/7-3-329-431.pdf>.
- [66] M. Cooper, "Size dimorphism and directional selection in forest millipedes," Arthropod., vol. 8, no. 3, pp. 102-109, 2019. [http://www.iaees.org/publications/journals/arthropods/articles/2019-8\(3\)/size-dimorphism-and-directional-selection-in-forest-millipedes.pdf](http://www.iaees.org/publications/journals/arthropods/articles/2019-8(3)/size-dimorphism-and-directional-selection-in-forest-millipedes.pdf).
- [67] M. Cooper, "Xylophagous millipede surface area to volume ratios are size dependent in forests," Arthropod., vol. 8, no. 4, pp. 127-136, 2019.
- [68] M. Cooper, "Size dimorphism in six juliform millipedes," Arthropod., vol. 8, no. 4, pp. 137-142, 2019.
- [69] M. Cooper, "Year-round correlation between mass and copulation duration in forest millipedes," Arthropod., vol. 9, no. 1, pp. 15-20, 2020.
- [70] M. Cooper, "Kurtosis and skew show longer males in *Centrobolus*," Arthropod., vol. 9, no. 1, pp. 21-26, 2020.
- [71] M. Cooper, "Studies of behavioural ecology of *Centrobolus*," LAP LAMBERT Academic Publishing, Mauritius. pp. 1-420, 2020. ISBN: 978-620-2-52046-1.
- [72] M. Cooper, "Mating dynamics of South African forest millipedes," LAP LAMBERT Academic Publishing, Mauritius. pp. 1-164, 2020. ISBN: 978-620-0-58569-1.
- [73] M. Cooper, "Behavioural ecology of *Centrobolus*," LAP LAMBERT Academic Publishing, Mauritius. pp. 1-520, 2020. ISBN: 978-620-0-50406-7.
- [74] M. Cooper, "Zoomorphic variation with copulation duration in *Centrobolus*," Arthropod., vol. 9, no. 2, pp. 63-67, 2020. [http://www.iaees.org/publications/journals/arthropods/articles/2020-9\(2\)/zoomorphic-variation-with-copulation-duration-in-Centrobolus.pdf](http://www.iaees.org/publications/journals/arthropods/articles/2020-9(2)/zoomorphic-variation-with-copulation-duration-in-Centrobolus.pdf).
- [75] M. Cooper, "Latitudinal-size trend in eight species of *Centrobolus*," J. Entomol. Zool. Stud. vol. 8, no. 2, pp. 122-127, 2020. <http://www.entomoljournal.com/archives/2020/vol8issue2/PartC/8-1-381-253.pdf>.
- [76] M. Cooper, "Longitudinal-size trend in eight species of *Centrobolus*," Intern. J. Zool. Invest. vol. 6, no. 1, pp. 58-64, 2020. <https://doi.org/10.33745/ijzi.2020.v06i01.005>.
- [77] M. Cooper, "Correction: *Centrobolus dubius* (Schubart, 1966) Monomorphism," Int. J. Res. Stud. Zool. vol. 6, no. 2, pp. 25-28, 2020. <http://www.arcjournals.org/pdfs/ijrsz/v6-i2/3.pdf>.
- [78] M. Cooper, "Latitudinal and longitudinal gradients in Old World forest millipedes," LAP LAMBERT Academic Publishing: pp. 77, 2021 ISBN: 978-620-3-02454-8.



- [79] M. Cooper, "Intrasexual and intersexual size variation in *Centrobolus Cook, 1897*," Scholars' Press, Mauritius. pp. 1-56, 2021. ISBN: 978-613-8-95101-8.
- [80] M. Cooper, "Size-assortment in *Centrobolus Cook, 1897*," Scholars' Press, Mauritius. pp. 1-52, 2021. ISBN: 978-613-8-95118-6. <http://www.megabooks.sk/p/18255119>.
- [81] M. Cooper, "Wewnętrzna i międzypłciowa zmienność wielkości u *Centrobolus Cook, 1897*," Scienza Scripts, Mauritius. pp. 1-52, 2021. ISBN: 978-620-3-50733-1. <http://www.megabooks.cz/p/17829353>.
- [82] M. Cooper, "Variabilidade de tamanhos no *Centrobolus Cook, 1897*," Novas Edições Acadêmicas, Mauritius. pp. 1-52, 2021. ISBN: 978-620-3-46650-8.
- [83] M. Cooper, "Variação de tamanho intrasexual e intersexual no *Centrobolus Cook, 1897*," Edições Nosso Conhecimento, Scienza Scripts, Mauritius. pp. 1-52, 2021. ISBN: 978-620-3-50735-5.
- [84] M. Cooper, "Variazione di taglia intrasessuale e intersessuale in *Centrobolus Cook, 1897*," Scienza Scripts, Mauritius. pp. 1-52, 2021. ISBN: 978-620-3-50731-7. <http://www.megabooks.sk/p/18462116>.
- [85] M. Cooper, "Variation de taille intrasexuelle et intersexuelle chez *Centrobolus Cook, 1897*," Scienza Scripts, Mauritius. pp. 1-52, 2021. ISBN: 978-620-3-50730-0. <http://www.megabooks.sk/p/18462115>.
- [86] M. Cooper, "Intrasexuelle und intersexuelle größenvariation bei *Centrobolus Cook, 1897*," Scienza Scripts, Mauritius. pp. 1-52, 2021. ISBN: 978-620-3-50729-4. <http://www.megabooks.cz/p/17470313>.
- [87] M. Cooper, "Size-assortment in *Centrobolus Cook, 1897* (Diplopoda: Pachybolidae)," Scholars' Press, Mauritius. pp. 1-52, 2021. ISBN: 978-613-8-95105-6. <http://www.megabooks.sk/p/18254871>.
- [88] M. Cooper, "Variação da duração da cópula em milípedes semelhantes a vermes," Novas Edições Acadêmicas, Mauritius. pp. 1-56, 2021. ISBN: 978-620-3-46666-9.
- [89] M. Cooper, "Surtido de tamaño en *Centrobolus Cook, 1897*," Editorial Académica Española, Mauritius. pp. 1-56, 2021. ISBN: 978-620-3-03960-3.
- [90] M. Cooper, "Größen-Sortierung bei *Centrobolus Cook, 1897* (Diplopoda: Pachybolidae)," Südwestdeutscher Verlag für Hochschulschriften, Scienza Scripts, Mauritius. pp. 1-52, 2021. ISBN: 978-620-3-54955-3. <http://www.dodax.co.uk/en-gb/books-audiobooks/zoology/cooper-mark-groessensortierung-bei-centrobolus-cook-1897-diplopoda-pachybolidae-dp3Q15G7L5H49>.
- [91] M. Cooper, "Cambio en la duración de la cópula en ciempiés gusano," Editorial Académica Española, Mauritius. pp. 1-56, 2021. ISBN: 978-620-3-03965-8.
- [92] M. Cooper, "Размерный ассортимент в *Centrobolus Cook, 1897* r," Scienza Scripts, Mauritius. pp. 1-52, 2021. ISBN: 978-620-3-59606-9. <http://my-shop.ru/shop/product/4534060.html>.
- [93] M. Cooper, "Variation de durée de copulation dans les mille-pattes vermifuges," Presses Académiques Francophones, Mauritius. pp. 1-52, 2021. ISBN: 978-3-8416-3326-2.
- [94] M. Cooper, "Sortimento de tamanhos em *Centrobolus Cook, 1897*," Edições Nosso Conhecimento, Mauritius. pp. 1-52, 2021. ISBN: 978-620-3-59608-3. <http://www.megabooks.sk/p/18456483>.
- [95] M. Cooper, "Size assortment in *Centrobolus Cook, 1897*," Our Knowledge Publishing, Mauritius. pp. 1-52, 2021. ISBN: 978-620-3-59602-1. <http://www.megabooks.sk/p/18456478>.
- [96] M. Cooper, "Größensortierung bei *Centrobolus Cook, 1897*," Verlag Unser Wissen, Mauritius. pp. 1-52, 2021. ISBN: 978-620-3-59601-4. <http://www.megabooks.sk/p/18192206>.
- [97] M. Cooper, "Groottesortering bij *Centrobolus Cook, 1897*," Uitgeverij Onze Kennis, Mauritius. pp. 1-52, 2021. ISBN: 978-620-3-59605-2.
- [98] M. Cooper, "Assortimento di dimensioni in *Centrobolus Cook, 1897*," Edizioni Sapienza, Mauritius. pp. 1-52, 2021. ISBN: 978-620-3-59604-5. <http://www.megabooks.sk/p/18456480>.
- [99] M. Cooper, "Assortiment de tailles chez *Centrobolus Cook, 1897*," Editions Notre Savoir, Mauritius. pp. 1-52, 2021. ISBN: 978-620-3-59603-8. <http://www.megabooks.sk/p/18456479>.
- [100] M. Cooper, "Assortment of sizes in *Centrobolus Cook, 1897* (Diplopoda: Pachybolidae)," Wydawnictwo Nasza Wiedza, Mauritius. pp. 1-52, 2021. ISBN: 978-620-3-59607-6.
- [101] M. Cooper, "Zmiana czasu trwania kopulacji w krocionogach przypominających robaki," Wydawnictwo Nasza Wiedza, Mauritius. pp. 1-56, 2021. ISBN: 978-620-3-62161-7. <http://www.megabooks.sk/p/18456980>.
- [102] M. Cooper, "Verandering in copulatieduur bij wormduizendpoten (Juliformes)," Uitgeverij Onze Kennis. pp. 1-56, 2021. ISBN: 978-6203621600.
- [103] M. Cooper, "Veränderung der Kopulationsdauer bei Wurmtausendfüßern," Verlag Unser Wissen. pp. 1-52, 2021. ISBN: 978-620-3-62156-3. <http://www.megabooks.sk/p/18258985>.
- [104] M. Cooper, "Modification de la durée de la copulation chez les millipèdes vermiformes," Editions Notre Savoir, Mauritius. pp. 1-56, 2021. ISBN: 978-620-3-62158-7. <http://www.megabooks.sk/p/18456978>.
- [105] M. Cooper, "Modifica della durata della copolazione nei millepiedi vermi," Edizioni Sapienza, Mauritius. pp. 1-56, 2021. ISBN: 978-620-3-62159-4. <http://www.megabooks.sk/p/18456979>.
- [106] M. Cooper, "Copulation duration variation in worm-like millipedes," Our Knowledge Publishing, Mauritius. pp. 1-52, 2021. ISBN: 978-620-3-62157-0. <http://www.megabooks.sk/p/18456977>.
- [107] M. Cooper, "Alteracao na duracao da copula nas centopeias de minhocas," Edicoes Nosso Conhecimento, Mauritius. pp. 1-56, 2021. ISBN: 978-620-3-62162-4. <http://www.megabooks.sk/p/18456981>.
- [108] M. Cooper, "Zmiana czasu trwania kopulacji w krocionogach przypominających robaki," Globe Edit, Latvia. pp. 1-56, 2021. ISBN: 978-620-0-62248-8.
- [109] M. Cooper, "Variasjon i kokulasjonsvariasjon i ormlignende millipeder," Globe Edit, Latvia. pp. 1-52, 2021. ISBN: 978-620-0-62250-1.
- [110] M. Cooper, "Copulation duration variation in worm-like millipedes," Scholars' Press, Mauritius. pp. 1-52, 2021. ISBN: 978-3-639-66208-5.
- [111] M. Cooper, "Variatie in copulatieduur in wormachtige duizendpoten," Globe Edit, Latvia. pp. 1-52, 2021. ISBN: 978-620-0-62258-7.

- [112] M. Cooper, "Variation i kopulationsvarighed i ormelignende tusindben," Globe Edit, Latvia. pp. 1-56, 2021. ISBN: 978-620-0-62257-0.
- [113] M. Cooper, "İçeriği Centrobolus Cook boyut aralığı, 1897 (Diplopoda: Pachybolidae)," LAP LAMBERT Academic Publishing, Mauritius. pp. 1-56, 2021. ISBN: 978-620-3-83963-0.
- [114] M. Cooper, "Kopuleringsstidsvariation i maskliknande millipeder," Globe Edit, Latvia. pp. 1-52, 2021. ISBN: 978-620-0-62277-8.
- [115] M. Cooper, "Variation de durée de copulation dans les mille-pattes vermifuges," Blessed Hope Publishing. pp. 1-56, 2021. ISBN: 978-3841633269. <http://www.megabooks.sk/p/18361163>.
- [116] M. Cooper, "ワーム様ミリペデスにおける交尾期間変動," Globe Edit, Latvia. pp. 1-56, 2021. ISBN: 978-620-0-62260-0.
- [117] M. Cooper, "Parittelun keston vaihtelu matomaisten millipedes," Globe Edit, Latvia. pp. 1-52, 2021. ISBN: 978-620-0-62259-4.
- [118] M. Cooper, "Variația duratei copulării în milipelele asemănătoare viermilor," Globe Edit, Latvia. pp. 1-56, 2021. ISBN: 978-620-0-62255-6.
- [119] M. Cooper, "A párzás időtartama a féreg-szerű millipelek változása," Globe Edit, Latvia. pp. 1-52, 2021. ISBN: 978-620-0-62261-7.
- [120] M. Cooper, "蠕蟲狀千足蟲的複製持續時間變化," pp. 1-52, 2021. Goldenlight publishing, Republic of Moldova. ISBN: 978-620-2-41290-2.
- [121] M. Cooper, "웜과 같은 밀리페드의 교화 지속 시간 변화 (줄리포미아)," Globe Edit, Latvia. pp. 1-52, 2021. ISBN: 978-620-0-62533-5.
- [122] M. Cooper, "Mass covaries with volume in forest millipedes Centrobolus Cook, 1897," J. Entomol. Zool. Stud. vol. 9, no. 6, pp. 190-192, 2021. <http://www.entomoljournal.com/archives/2021/vol9issue6/PartC/9-6-36-202.pdf>.
- [123] M. Cooper, "The inverse latitudinal gradient in species richness of forest millipedes: Pentazonia Brandt, 1833," J. Entomol. Zool. Stud. vol. 10, no. 1, pp. 01-04, 2022. <http://www.entomoljournal.com/archives/2022/vol10issue1/PartA/9-6-47-884.pdf>.
- [124] M. Cooper, "The inverse latitudinal gradient in species richness of forest millipedes: Pachybolidae Cook, 1897," J. Entomol. Zool. Stud. vol. 10, no. 1, pp. 05-08, 2022. <http://www.entomoljournal.com/archives/2022/vol10issue1/PartA/9-6-49-906.pdf>.
- [125] M. Cooper, "Longer Males Determined with Positive Skew and Kurtosis in Centrobolus (Diplopoda: Spirobolida: Pachybolidae)," New Visions in Biological Science Vol. 8, pp. 102-106, 2022. <http://doi.org/10.9734/bpi/nvbs/v8/1876A>.
- [126] M. Cooper, "Study on Year-round Correlation between Mass and Copulation Duration in Forest Millipedes," New Visions in Biological Science Vol. 8, pp. 107-112, 2022. <http://doi.org/10.9734/bpi/nvbs/v8/1877A>.
- [127] M. Cooper, "Study on Size Dimorphism in Six Juliform Millipedes," New Visions in Biological Science Vol. 8, pp. 113-119, 2022. <http://doi.org/10.9734/bpi/nvbs/v8/1878A>.
- [128] M. Cooper, "Xylophagous Millipede Surface Area to Volume Ratios are Size-dependent in Forests: A Brief Study," New Visions in Biological Science Vol. 8, pp. 120-128, 2022. <http://doi.org/10.9734/bpi/nvbs/v8/1879A>.
- [129] M. Cooper, "A Study on Centrobolus titanophilus Size Dimorphism Shows Width-Based Variability," New Visions in Biological Science Vol. 8, pp. 129-135, 2022. <http://doi.org/10.9734/bpi/nvbs/v8/1880A>.
- [130] M. Cooper, "Study on Zoomorphic Variation with Copulation Duration in Centrobolus," New Visions in Biological Science Vol. 8, pp. 144-149, 2022. <http://doi.org/10.9734/bpi/nvbs/v8/1882A>.
- [131] M. Cooper, "The copulation duration allometry in Centrobolus (Diplopoda: Spirobolida: Pachybolidae)," J. Entomol. Zool. Stud. vol. 10, no. 1, pp. 63-68, 2022. <https://doi.org/10.22271/j.ento.2022.v10.i1a.8925>.
- [132] M. Cooper, "Behavioral ecology of Centrobolus (Diplopoda, Spirobolida, Pachybolidae) in Southern Africa," New Visions in Biological Science Vol. 9, pp. 1-6, 2022. <http://doi.org/10.9734/bpi/nvbs/v9/1883A>.
- [133] M. Cooper, "Study About Size Dimorphism and Directional Selection in Forest Millipedes," New Visions in Biological Science Vol. 9, pp. 7-13, 2022. <http://doi.org/10.9734/bpi/nvbs/v9/1884A>.
- [134] M. Cooper, "The Copulation duration Allometry in Centrobolus (Diplopoda: Spirobolida: Pachybolidae)," New Visions in Biological Science Vol. 9, pp. 21-28, 2022. <http://doi.org/10.9734/bpi/nvbs/v9/1891A>.
- [135] M. Cooper, "The Copulation duration Allometry in Worm-like Millipedes (Diplopoda: Chilognatha: Helminthomorpha)," New Visions in Biological Science Vol. 9, pp. 29-38, 2022. <http://doi.org/10.9734/bpi/nvbs/v9/1892A>.
- [136] M. Cooper, "Length and Width Correlations in Centrobolus Cook, 1897," New Visions in Biological Science Vol. 9, pp. 39-45, 2022. <http://doi.org/10.9734/bpi/nvbs/v9/1893A>.
- [137] M. Cooper, "Mating Order Establishes Male Size Advantage in the Polygynandrous Millipede Centrobolus inscriptus Attems, 1928," New Visions in Biological Science Vol. 9, pp. 46-51, 2022. <http://doi.org/10.9734/bpi/nvbs/v9/1894A>.
- [138] M. Cooper, "Why Sexual Size Dimorphism Increases with Longitude, Precipitation and Temperature and Decreases with Latitude in Forest Millipedes Centrobolus Cook, 1897," New Visions in Biological Science Vol. 9, pp. 58-67, 2022. <http://doi.org/10.9734/bpi/nvbs/v9/1896A>.
- [139] M. Cooper, "Bergmann's Rule: Size Correlates with Longitude and Temperature in Forest Millipedes Centrobolus Cook, 1897," New Visions in Biological Science Vol. 9, pp. 68-81, 2022. <http://doi.org/10.9734/bpi/nvbs/v9/1897A>.
- [140] M. Cooper, "The Inverse Latitudinal Gradient in Species Richness of Forest Millipedes: Centrobolus Cook, 1897," New Visions in Biological Science Vol. 9, pp. 82-88, 2022. <http://doi.org/10.9734/bpi/nvbs/v9/1898A>.
- [141] M. Cooper, "Total Body Rings Increase with Latitude and Decrease with Precipitation in Forest Millipedes Centrobolus Cook, 1897," New Visions in

- Biological Science Vol. 9, pp. 96-101, 2022. <http://doi.org/10.9734/bpi/nvbs/v9/1900A>.
- [142] M. Cooper, "Does sexual size dimorphism vary with longitude in forest millipedes *Centrobolus* Cook, 1897?" International Journal of Recent Research in Thesis and Dissertation, vol. 3, no. 1, pp. 1-5, 2022. <https://www.paperpublications.org/issue/IJRRTD/Issue-1-January-2022-June-2022>.
- [143] M. Cooper, "Does sexual size dimorphism vary with latitude in forest millipedes *Centrobolus* Cook, 1897?" Int. J. Re. Res. Thesis Diss., vol. 3, no. 1, pp. 6-11, 2022. <https://www.paperpublications.org/issue/IJRRTD/Issue-1-January-2022-June-2022>.
- [144] M. Cooper, "Does sexual size dimorphism vary with temperature in forest millipedes *Centrobolus* Cook, 1897?" Acta Entomol. Zool., vol. 3, no. 1, pp. 08-11, 2022. <https://doi.org/10.33545/27080013.2022.v3.i1a.51>.
- [145] M. Cooper, "DOES SEXUAL SIZE DIMORPHISM VARY WITH MONTH WITH THE HIGHEST NUMBER OF RAINY DAYS IN FOREST MILLIPEDES *CENTROBOLUS* COOK, 1897," Universe Int. J. Interdiscip. Res., vol. 2, no. 9, pp. 9-14, 2022. <https://www.doi-ds.org/doi/10.33545/27080013.2022.v3.i1a.51>.
- [146] M. Cooper, "PAIR-WISE COMPARISON OF SEXUAL SIZE DIMORPHISM AMONG NINE FACTORS IN FOREST MILLIPEDES *CENTROBOLUS* COOK, 1897," Universe Int. J. Interdiscip. Res., vol. 2, no. 9, pp. 31-33, 2022. <https://www.doi-ds.org/doi/10.33545/27080013.2022.v3.i1a.51>.
- [147] M. Cooper, "Does sexual size dimorphism vary with female size in forest millipedes *Centrobolus* Cook, 1897?" Acta Entomol. Zool., vol. 3, no. 1, pp. 15-18, 2022. <https://doi.org/10.33545/27080013.2022.v3.i1a.57>.
- [148] M. Cooper, "Does sexual size dimorphism vary with hours of sunshine throughout the year in forest millipedes *Centrobolus* Cook, 1897?" Acta Entomol. Zool., vol. 3, no. 1, pp. 19-25, 2022. DOI: <https://doi.org/10.33545/27080013.2022.v3.i1a.58>.
- [149] M. Cooper, "DOES SEXUAL SIZE DIMORPHISM VARY WITH SPECIES RICHNESS IN FOREST MILLIPEDES *CENTROBOLUS* COOK, 1897?" Universe Int. J. Interdiscip. Res., vol. 2, no. 10, pp. 25-29, 2022. <https://www.doi-ds.org/doi/10.33545/27080013.2022.v3.i1a.64>.
- [150] M. Cooper, "PAIR-WISE COMPARISON OF SEXUAL SHAPE DIMORPHISM AMONG FIFTEEN FACTORS IN FOREST MILLIPEDES *CENTROBOLUS* COOK, 1897," Universe Int. J. Interdiscip. Res., vol. 2, no. 10, pp. 9-14, 2022. <https://www.doi-ds.org/doi/10.33545/27080013.2022.v3.i1a.64>.
- [151] M. I. Cooper, "Five factors effecting copulation duration in the breeding season in forest millipedes *Centrobolus* Cook, 1897," Zoological and Entomological Letters, vol. 2, no. 1, pp. 17-22, 2022. <https://www.zoologicaljournal.com/archives/2022.v2.i1.A.26>.
- [152] M. Cooper, "Does sexual size dimorphism vary with time in red millipedes *Centrobolus* Cook, 1897?" Zool. Entomol. Lett., vol. 2, no. 1, pp. 30-35, 2022. <https://www.zoologicaljournal.com/archives/2022.v2.i1.A.29>.
- [153] M. Cooper, "Mating frequencies of sympatric red millipedes differ across substrate due to absolute abundances," Acta Entomol. Zool., vol. 3, no. 1, pp. 34-39, 2022. <https://doi.org/10.33545/27080013.2022.v3.i1a.62>.
- [154] M. Cooper, "Does sexual size dimorphism vary with maximum and minimum temperatures in red millipedes *Centrobolus* Cook, 1897?" Zool. Entomol. Lett., vol. 2, no. 1, pp. 60-65, 2022. <https://www.zoologicaljournal.com/archives/2022.v2.i1.B.34>.
- [155] M. Cooper, "Does sexual size dimorphism vary with sex ratio in red millipedes *Centrobolus* Cook, 1897?" Zool. Entomol. Lett., vol. 2, no. 1, pp. 66-68, 2022. <https://www.zoologicaljournal.com/archives/2022.v2.i1.B.35>.
- [156] M. Cooper, "Millipede mass: Intersexual differences," Zool. Entomol. Lett., vol. 2, no. 1, pp. 69-70, 2022. <https://www.zoologicaljournal.com/archives/2022.v2.i1.B.36>.
- [157] M. I. Cooper, "Do copulation duration and sexual size dimorphism vary with absolute abundance in red millipedes *Centrobolus* Cook, 1897?" Acta Entomol. Zool., vol. 3, no. 1, pp. 51-54, 2022. <https://www.actajournal.com/archives/2022.v3.i1.A.64>. <https://doi.org/10.33545/27080013.2022.v3.i1a.64>.
- [158] M. Cooper, "DOES SEXUAL SIZE DIMORPHISM VARY WITH FEMALE LENGTH INFESTED MILLIPEDES *CENTROBOLUS* COOK, 1897?" Universe Int. J. Interdiscip. Res., vol. 2, no. 12, pp. 1-7, 2022. <https://www.doi-ds.org/doi/10.33545/27080013.2022.v3.i1a.64>.
- [159] M. Cooper, "DOES SEXUAL SIZE DIMORPHISM VARY WITH PRECIPITATION IN FOREST MILLIPEDES *CENTROBOLUS* COOK, 1897?" Munis Entomology and Zoology, vol. 17, no. 2, pp. 1185-1189, 2022.
- [160] M. I. Cooper, "Do copulation durations of sympatric red millipedes vary seasonally with mating frequencies?" Int. J. Re. Res. Thesis Diss., vol. 3, no. 1, pp. 85-90, 2022. <https://doi.org/10.5281/zenodo.6613001>.
- [161] M. I. Cooper, "The inverse latitudinal gradients in species richness of Southern African millipedes," Int. J. Re. Res. Thesis Diss., vol. 3, no. 1, pp. 91-112, 2022. <https://doi.org/10.5281/zenodo.6613064>.
- [162] M. I. Cooper, "DOES SEXUAL SIZE DIMORPHISM VARY WITH LOG SEXUAL SIZE DIMORPHISM IN RED MILLIPEDES *CENTROBOLUS* COOK, 1897?" Universe Int. J. Interdiscip. Res., vol. 2, no. 12, pp. 52-54, 2022. <https://www.doi-ds.org/doi/10.33545/27080013.2022.v3.i1a.64>.
- [163] M. I. Cooper, "Do copulation duration and sexual size dimorphism vary with absolute abundance in red millipedes *Centrobolus* Cook, 1897?" Acta Entomol. Zool., vol. 3, no. 1, pp. 51-54, 2022. <https://www.actajournal.com/archives/2022.v3.i1.A.64>. <https://doi.org/10.33545/27080013.2022.v3.i1a.64>.
- [164] M. Cooper, "DOES SEXUAL SIZE DIMORPHISM VARY WITH FEMALE LENGTH INFESTED MILLIPEDES *CENTROBOLUS* COOK, 1897?" Universe Int. J. Interdiscip. Res., vol. 2, no. 12, pp.



- 1-7, 2022. <https://www.doi-ds.org/doi/10.2022-69939779/UIJIR>.
- [165] M. Cooper, "DOES SEXUAL SIZE DIMORPHISM VARY WITH PRECIPITATION INFEST MILLIPEDES CENTROBOLUS COOK, 1897?" *Munis Entomology and Zoology*, vol. 17, no. 2, pp. 1185-1189, 2022.
- [166] M. I. Cooper, "Do copulation durations of sympatric red millipedes vary seasonally with mating frequencies?" *Int. J. Re. Res. Thesis Diss.*, vol. 3, no. 1, pp. 85-90, 2022. <https://doi.org/10.5281/zenodo.6613001>.
- [167] M. I. Cooper, "The inverse latitudinal gradients in species richness of Southern African millipedes," *Int. J. Re. Res. Thesis Diss.*, vol. 3, no. 1, pp. 91-112, 2022. <https://doi.org/10.5281/zenodo.6613064>.
- [168] M. I. Cooper, "DOES SEXUAL SIZE DIMORPHISM VARY WITH LOG SEXUAL SIZE DIMORPHISM IN RED MILLIPEDES CENTROBOLUS COOK, 1897?" *Universe Int. J. Interdiscip. Res.*, vol. 2, no. 12, pp. 52-54, 2022. <https://www.doi-ds.org/doi/10.2022-83544225/UIJIR>.
- [169] M. Cooper, "THE TIE-IN OF MALE BODY WIDTH ON COPULATION DURATION IN CENTROBOLUS COOK, 1897," *Universe Int. J. Interdiscip. Res.*, vol. 3, no. 1, pp. 45-47, 2022. <https://www.doi-ds.org/doi/10.2022-88932399/UIJIR>.
- [170] M. I. Cooper, "IS A PROMINENT STERNITE RELATED TO MOMENTS OF INERTIA IN CENTROBOLUS COOK, 1897?" *International Journal of Engineering Science Invention Research & Development*, vol. 8, no. 12, pp. 26-28, 2022. [http://www.ijesird.com/1\\_june\\_22.PDF](http://www.ijesird.com/1_june_22.PDF).
- [171] M. I. Cooper, "IS COPULATION DURATION RELATED TO MOMENTS OF INERTIA IN CENTROBOLUS COOK, 1897?" *International Journal of Engineering Science Invention Research & Development*, vol. 8, no. 12, pp. 29-31, 2022. [http://www.ijesird.com/2\\_june\\_22.PDF](http://www.ijesird.com/2_june_22.PDF).
- [172] M. I. Cooper, "COPULATION DURATION IS RELATED TO EJACULATING VOLUME IN CENTROBOLUS INSCRIPTUS (ATTEMPS, 1928)," *International Journal of Engineering Science Invention Research & Development*, vol. 8, no. 12, pp. 32-40, 2022. [http://www.ijesird.com/3\\_june\\_22.PDF](http://www.ijesird.com/3_june_22.PDF).
- [173] M. I. Cooper, "Is a prominent sternite related to mass in *Centrobolus Cook*, 1897?" *International Journal of Engineering Science Invention Research & Development*, vol. 9, no. 1, pp. 1-4, 2022. [http://www.ijesird.com/1\\_jul\\_22.PDF](http://www.ijesird.com/1_jul_22.PDF).
- [174] M. I. Cooper, "Does sex ratio vary with absolute abundance in red millipedes *Centrobolus Cook*, 1897?" *International Journal of Engineering Science Invention Research & Development*, vol. 9, no. 1, pp. 5-8, 2022. [http://www.ijesird.com/2\\_jul\\_22.PDF](http://www.ijesird.com/2_jul_22.PDF).
- [175] M. I. Cooper, "Does copulation duration vary with absolute abundance in red millipedes *Centrobolus Cook*, 1897?" *International Journal of Engineering Science Invention Research & Development*, vol. 9, no. 1, pp. 9-11, 2022. [http://www.ijesird.com/3\\_jul\\_22.PDF](http://www.ijesird.com/3_jul_22.PDF).
- [176] M. I. Cooper, "Are a prominent sternite, coleopod spine length, and spine number related to mating frequencies in *Centrobolus Cook*, 1897?" *International Journal of Engineering Science Invention Research & Development*, vol. 9, no. 1, pp. 12-15, 2022. [http://www.ijesird.com/4\\_jul\\_22.PDF](http://www.ijesird.com/4_jul_22.PDF).
- [177] M. I. Cooper, "Are coleopod spine length and number related to weather in *Centrobolus Cook*, 1897?" *International Journal of Engineering Science Invention Research & Development*, vol. 9, no. 1, pp. 16-23, 2022. [http://www.ijesird.com/5\\_jul\\_22.PDF](http://www.ijesird.com/5_jul_22.PDF).
- [178] M. I. Cooper, "Are coleopod spine length and number related to mass in *Centrobolus Cook*, 1897?" *International Journal of Engineering Science Invention Research & Development*, vol. 9, no. 1, pp. 24-26, 2022. [http://www.ijesird.com/6\\_jul\\_22.PDF](http://www.ijesird.com/6_jul_22.PDF).
- [179] M. I. Cooper, "Is mass related to latitude, longitude, and weather in *Centrobolus Cook*, 1897?" *International Journal of Engineering Science Invention Research & Development*, vol. 9, no. 1, pp. 27-32, 2022. [https://www.ijesird.com/7\\_jul\\_22.PDF](https://www.ijesird.com/7_jul_22.PDF).
- [180] M. I. Cooper, "ARE MATING FREQUENCIES RELATED TO ABSOLUTE ABUNDANCE IN *CENTROBOLUS COOK*, 1897?" *International Journal of Engineering Science Invention Research & Development*, vol. 9, no. 1, pp. 33-37, 2022. [https://www.ijesird.com/8\\_jul-22.PDF](https://www.ijesird.com/8_jul-22.PDF).
- [181] M. I. Cooper, "Does sex ratio vary with absolute abundance in red millipedes *Centrobolus Cook*, 1897?" *International Journal of Engineering Science Invention Research & Development*, vol. 9, no. 1, pp. 5-8, 2022. [http://www.ijesird.com/2\\_jul\\_22.PDF](http://www.ijesird.com/2_jul_22.PDF).
- [182] M. I. Cooper, "Does copulation duration vary with absolute abundance in red millipedes *Centrobolus Cook*, 1897?" *International Journal of Engineering Science Invention Research & Development*, vol. 9, no. 1, pp. 9-11, 2022. [http://www.ijesird.com/3\\_jul\\_22.PDF](http://www.ijesird.com/3_jul_22.PDF).
- [183] M. I. Cooper, "Are a prominent sternite, coleopod spine length, and spine number related to mating frequencies in *Centrobolus Cook*, 1897?" *International Journal of Engineering Science Invention Research & Development*, vol. 9, no. 1, pp. 12-15, 2022. [http://www.ijesird.com/4\\_jul\\_22.PDF](http://www.ijesird.com/4_jul_22.PDF).
- [184] M. I. Cooper, "Are coleopod spine length and number related to weather in *Centrobolus Cook*, 1897?" *International Journal of Engineering Science Invention Research & Development*, vol. 9, no. 1, pp. 16-23, 2022. [http://www.ijesird.com/5\\_jul\\_22.PDF](http://www.ijesird.com/5_jul_22.PDF).
- [185] M. I. Cooper, "Are coleopod spine length and number related to mass in *Centrobolus Cook*, 1897?" *International Journal of Engineering Science Invention Research & Development*, vol. 9, no. 1, pp. 24-26, 2022. [http://www.ijesird.com/6\\_jul\\_22.PDF](http://www.ijesird.com/6_jul_22.PDF).
- [186] M. I. Cooper, "Is mass related to latitude, longitude, and weather in *Centrobolus Cook*, 1897?" *International Journal of Engineering Science Invention Research & Development*, vol. 9, no. 1, pp. 27-32, 2022. [https://www.ijesird.com/7\\_jul\\_22.PDF](https://www.ijesird.com/7_jul_22.PDF).
- [187] M. I. Cooper, "ARE MATING FREQUENCIES RELATED TO ABSOLUTE ABUNDANCE IN *CENTROBOLUS COOK*, 1897?" *International Journal of Engineering Science Invention Research & Development*, vol. 9, no. 1, pp. 33-37, 2022. [https://www.ijesird.com/8\\_jul-22.PDF](https://www.ijesird.com/8_jul-22.PDF).



- [188] M. I. Cooper, "DOES COPULATION DURATION VARY WITH SEX RATIO IN THE RED MILLIPEDE CENTROBOLUS INSCRIPTUS (ATTEMPS, 1928)?" International Journal of Engineering Science Invention Research & Development, vol. 9, no. 1, pp. 38-40, 2022. [https://www.ijesird.com/9\\_jul\\_22.PDF](https://www.ijesird.com/9_jul_22.PDF).
- [189] M. I. Cooper, "IS A PROMINENT STERNITE RELATED TO WEATHER IN CENTROBOLUS COOK, 1897?" International Journal of Engineering Science Invention Research & Development, vol. 9, no. 1, pp. 41-44, 2022. [https://www.ijesird.com/10\\_jul\\_22.PDF](https://www.ijesird.com/10_jul_22.PDF).
- [190] M. I. Cooper, "ARE MATING FREQUENCIES RELATED TO SEX RATIO IN CENTROBOLUS COOK, 1897?" International Journal of Engineering Science Invention Research & Development, vol. 9, no. 1, pp. 45-48, 2022. [https://www.ijesird.com/11\\_jul\\_22.PDF](https://www.ijesird.com/11_jul_22.PDF).
- [191] M. I. Cooper, "ARE MATING FREQUENCIES RELATED TO SEXUAL SIZE DIMORPHISM IN CENTROBOLUS COOK, 1897?" International Journal of Engineering Science Invention Research & Development, vol. 9, no. 1, pp. 49-51, 2022. [https://www.ijesird.com/12\\_jul\\_22.PDF](https://www.ijesird.com/12_jul_22.PDF).
- [192] M. Cooper, "ARE MATING FREQUENCIES RELATED TO MOMENTS OF INERTIA ACROSS THE SEXES IN CENTROBOLUS COOK, 1897?" International Journal of Engineering Science Invention Research & Development, vol. 9, no. 1, pp. 52-55, 2022. [https://www.ijesird.com/13\\_jul\\_22.PDF](https://www.ijesird.com/13_jul_22.PDF).
- [193] M. I. Cooper, "ARE MATING FREQUENCIES RELATED TO TARSAL PAD LENGTH IN CENTROBOLUS COOK, 1897?" International Journal of Engineering Science Invention Research & Development, vol. 9, no. 2, pp. 1-4, 2022. [https://www.ijesird.com/1\\_aug\\_22.PDF](https://www.ijesird.com/1_aug_22.PDF).
- [194] M. Cooper, "IS COPULATION DURATION RELATED TO TARSAL PAD LENGTH IN CENTROBOLUS COOK, 1897?" International Journal of Engineering Science Invention Research & Development, vol. 9, no. 2, pp. 65-67, 2022. [https://www.ijesird.com/3\\_aug\\_22.PDF](https://www.ijesird.com/3_aug_22.PDF).
- [195] M. Cooper, "ARE ABSOLUTE ABUNDANCES RELATED TO TARSAL PAD LENGTH IN CENTROBOLUS COOK, 1897?" International Journal of Engineering Science Invention Research & Development, vol. 9, no. 2, pp. 68-70, 2022. [https://www.ijesird.com/4\\_aug\\_22.PDF](https://www.ijesird.com/4_aug_22.PDF).
- [196] M. I. Cooper, "ARE MATING FREQUENCIES RELATED TO MALE AND FEMALE SIZE IN CENTROBOLUS COOK, 1897?" International Journal of Engineering Science Invention Research & Development, vol. 9, no. 2, pp. 71-76, 2022. [https://www.ijesird.com/5\\_aug\\_22.PDF](https://www.ijesird.com/5_aug_22.PDF).
- [197] M. Cooper, "DOES EJACULATE VOLUME VARY WITH ABSOLUTE ABUNDANCE IN RED MILLIPEDES CENTROBOLUS COOK, 1897?" International Journal of Engineering Science Invention Research & Development, vol. 9, no. 2, pp. 77-79, 2022. [https://www.ijesird.com/6\\_aug\\_22.PDF](https://www.ijesird.com/6_aug_22.PDF).
- [198] M. I. Cooper, "THE MOMENTS OF INERTIA TIE-UP WITH FEMALE SIZE, HOURS OF SUNSHINE THROUGHOUT THE YEAR, LATITUDE, LONGITUDE, AND MINIMUM TEMPERATURE IN RED MILLIPEDES CENTROBOLUS COOK, 1897," Universe Int. J. Interdiscip. Res., vol. 3, no. 2, pp. 6-12, 2022. <https://www.doi-ds.org/doi/10.2022-76913842/UIJIR>.
- [199] M. I. COOPER, "ARE MATING FREQUENCIES RELATED TO EJACULATE VOLUMES IN CENTROBOLUS COOK, 1897?" International Journal of Engineering Science Invention Research & Development, vol. 9, no. 3, pp. 93-95, 2022. [https://www.ijesird.com/aug\\_ten.PDF](https://www.ijesird.com/aug_ten.PDF).
- [200] M. Cooper, "DOES SEXUAL SIZE DIMORPHISM VARY WITH FEMALE WIDTH IN FOREST MILLIPEDES CENTROBOLUS COOK, 1897?" Munis Entomol. Zool., vol. 17(supplement), pp. 1562-1565, 2022.
- [201] M. Cooper, "DOES SEXUAL SIZE DIMORPHISM VARY WITH THE HIGHEST TOTAL HOURS OF SUNSHINE IN A MONTH IN FOREST MILLIPEDES CENTROBOLUS COOK, 1897?" Munis Entomol. Zool., vol. 17(supplement), pp. 1596-1602, 2022.
- [202] M. Cooper, "DOES SEXUAL SIZE DIMORPHISM VARY WITH BODY MASS IN FOREST MILLIPEDES CENTROBOLUS COOK, 1897?" Munis Entomol. Zool. Suppl., vol. 17(supplement), pp. 1621-1624, 2022.
- [203] M. COOPER, "IS SIZE OR SSD RELATED TO ABUNDANCE IN CENTROBOLUS COOK, 1897?" International Journal of Engineering Science Invention Research & Development, vol. 9, no. 3, pp. 96-102, 2022. [https://www.ijesird.com/sep\\_one.PDF](https://www.ijesird.com/sep_one.PDF).
- [204] M. I. COOPER, "IS A PROMINENT STERNITE RELATED TO SEX RATIOS AND ABUNDANCE IN CENTROBOLUS COOK, 1897?" International Journal of Engineering Science Invention Research & Development, vol. 9, no. 3, pp. 103-106, 2022. [https://www.ijesird.com/sep\\_two\\_6.PDF](https://www.ijesird.com/sep_two_6.PDF).
- [205] M. I. Cooper, "DOES SEXUAL SIZE DIMORPHISM VARY WITH FEWEST DAILY HOURS OF SUNSHINE IN RED MILLIPEDES CENTROBOLUS COOK, 1897?" Universe Int. J. Interdiscip. Res., vol. 3, no. 3, pp. 89-92, 2022. <https://www.doi-ds.org/doi/10.2022-94655978/UIJIR>.
- [206] M. COOPER, "DOES (PREDICTED) MASS CORRELATE WITH MATING FREQUENCIES IN CENTROBOLUS COOK, 1897?" Universe Int. J. Interdiscip. Res., vol. 3, no. 4, pp. 141-149.
- [207] M. I. COOPER, "IS MASS CORRELATED WITH LENGTH AMONG RED MILLIPEDES CENTROBOLUS COOK, 1897?" Universe Int. J. Interdiscip. Res., vol. 3, no. 5, pp. 190-196, 2022. <https://www.doids.org/doi/10.2022-82684698/UIJIR>. <https://uijir.com/wp-content/uploads/2022/11/20-221012-UIJIR.pdf>.
- [208] M. I. Cooper, "ABUNDANCE IS RELATED TO SURFACE AREA AND SURFACE-AREA-TO-VOLUME RATIOS IN CENTROBOLUS COOK, 1897," Universe Int. J. Interdiscip. Res., vol. 3, no. 5, pp. 231-240, 2022. <https://www.doi-ds.org/doi/10.2022-99614928/UIJIR>. <http://hdl.handle.net/10019.1/125794>.
- [209] M. I. COOPER, "ARE SURFACE AREA AND SURFACE-AREA-TO-VOLUME RATIO RELATED TO SEX RATIOS IN CENTROBOLUS COOK, 1897?" International Journal of Engineering Science Invention

- Research & Development, vol. 9, no. 5, pp. 140-145, 2022. [http://ijesird.com/nov\\_1.PDF](http://ijesird.com/nov_1.PDF).
- [210] M. I. COOPER, "ARE SURFACE AREA AND SURFACE-AREA-TO-VOLUME RATIO RELATED TO COPULATION DURATION IN CENTROBOLUS COOK, 1897?" International Journal of Engineering Science Invention Research & Development, vol. 9, no. 4, pp. 146-151, 2022. [http://ijesird.com/nov\\_2.PDF](http://ijesird.com/nov_2.PDF).
- [211] M. I. Cooper, "DOES EJACULATE VOLUME VARY WITH SURFACE AREA AND SURFACE AREA TO VOLUME RATIO IN CENTROBOLUS COOK, 1897?" International Journal of Engineering Science Invention Research & Development, vol. 9, no. 5, pp. 152-154, 2022. [http://ijesird.com/nov\\_3.PDF](http://ijesird.com/nov_3.PDF). <http://hdl.handle.net/10019.1/125795>.
- [212] M. I. COOPER, "MATING FREQUENCY IS RELATED TO SURFACE AREA AND SURFACE-AREA-TO VOLUME RATIOS IN CENTROBOLUS COOK, 1897," International Journal of Engineering Science Invention Research & Development, vol. 9, no. 5, pp. 155-161, 2022. [http://ijesird.com/nov\\_4.PDF](http://ijesird.com/nov_4.PDF). <http://hdl.handle.net/10019.1/125795>.
- [213] M. I. COOPER, "ARE SURFACE AREA AND SURFACE-AREA-TO-VOLUME RATIO RELATED TO LATITUDE AND LONGITUDE IN CENTROBOLUS COOK, 1897?" International Journal of Engineering Science Invention Research & Development, vol. 9, no. 5, pp. 162-167, 2022. [http://ijesird.com/nov\\_5.PDF](http://ijesird.com/nov_5.PDF).
- [214] M. I. COOPER, "MOMENTS OF INERTIA COVARY WITH SURFACE AREA IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897," International Journal of Engineering Science Invention Research & Development, vol. 9, no. 5, pp. 168-173, 2022. [http://ijesird.com/nov\\_6.PDF](http://ijesird.com/nov_6.PDF).
- [215] M. Cooper, "TARSAL PAD LENGTHS ARE RELATED TO SURFACE-AREA-TO-VOLUME RATIOS IN CENTROBOLUS COOK, 1897," Universe Int. J. Interdiscip. Res., vol. 3, no. 6, pp. 27-33, 2022.
- [216] M. I. Cooper, "SURFACE-AREA-TO-VOLUME IS RELATED TO SEXUAL SIZE DIMORPHISM ACROSS CENTROBOLUS COOK, 1897," Universe Int. J. Interdiscip. Res., vol. 3, no. 6, pp. 34-42, 2022.
- [217] M. Cooper, "SEX RATIO VARIES WITH AVERAGE TEMPERATURE IN RED MILLIPEDES CENTROBOLUS COOK, 1897," International Journal of Engineering Science Invention Research & Development, vol. 9, no. 6, pp. 174-178, 2022. <http://ijesird.com/DEC1.PDF>.
- [218] M. Cooper, "SEX RATIO VARIES WITH MINIMUM TEMPERATURE IN RED MILLIPEDES CENTROBOLUS COOK, 1897," International Journal of Engineering Science Invention Research & Development, vol. 9, no. 6, pp. 179-183, 2022. <http://ijesird.com/DEC2.PDF>.
- [219] M. Cooper, "SEX RATIO VARIES WITH MAXIMUM TEMPERATURE IN RED MILLIPEDES CENTROBOLUS COOK, 1897," International Journal of Engineering Science Invention Research & Development, vol. 9, no. 6, pp. 184-188, 2022. <http://ijesird.com/DEC3.PDF>.
- [220] M. Cooper, "SEX RATIO VARIES WITH PRECIPITATION IN RED MILLIPEDES CENTROBOLUS COOK, 1897," International Journal of Engineering Science Invention Research & Development, vol. 9, no. 6, pp. 189-193, 2022. <http://ijesird.com/DEC4.PDF>.
- [221] M. Cooper, "SEX RATIO VARIES WITH HUMIDITY IN RED MILLIPEDES CENTROBOLUS COOK, 1897," International Journal of Engineering Science Invention Research & Development, vol. 9, no. 6, pp. 194-198, 2022. <http://ijesird.com/DEC5.PDF>.
- [222] M. Cooper, "SEX RATIO VARIES WITH RAINY DAYS IN RED MILLIPEDES CENTROBOLUS COOK, 1897," International Journal of Engineering Science Invention Research & Development, vol. 9, no. 6, pp. 199-203, 2022. <http://ijesird.com/DEC6.PDF>.
- [223] M. Cooper, "SEX RATIO VARIES WITH AVERAGE SUN HOURS IN RED MILLIPEDES CENTROBOLUS COOK, 1897," International Journal of Engineering Science Invention Research & Development, vol. 9, no. 6, pp. 204-207, 2022. <http://ijesird.com/DEC7.PDF>.
- [224] M. I. Cooper, "VOLUME IS RELATED TO SURFACE-AREA-TO-VOLUME ACROSS CENTROBOLUS COOK, 1897," Universe Int. J. Interdiscip. Res., vol. 3, no. 6, pp. 83-91, 2022.
- [225] M. L. Hamer, "Checklist of Southern African millipedes(Myriapoda: Diplopoda)," Annals of the Natal Museum, vol. 39, no. 1, pp. 11-82, 1998.
- [226] R. F. Lawrence, "The Spiroboloidea (Diplopoda) of the eastern half of Southern Africa\*," Annals of the Natal Museum, vol. 18, no. 3, pp. 607-646, 1967.
- [227] R. P. Mailula, "Taxonomic revision and Red List assessment of the red millipede genus Centrobolus (Spirobolida: Pachybolidae) of South Africa," The University of Kwazulu Natal, pp. 289, 2021.
- [228] COOPER, M. Mating frequencies vary with rainy days in red millipedes Centrobolus Cook, 1897. International Journal of Engineering Science Invention Research & Development. 2022; 9(6):
- [229] COOPER, MARK. Abundance varies with minimum temperature in red millipedes Centrobolus Cook, 1897. International Journal of Engineering Science Invention Research & Development. 2022; 9(6):
- [230] COOPER, MARK IAN. THE SURFACE AREA IS RELATED TO MATING FREQUENCIES ACROSS SYMPATRIC CENTROBOLUS ANULATUS (ATTEMS, 1934) AND C. INSCRIPTUS (ATTEMS, 1928). Universe Int. J. Interdiscip. Res. 2022; 3(7). (In Press).
- [231] Cooper, Mark I. Curved surface areas are equivocal to total surface areas in Centrobolus Cook, 1897. (IN PREP.).
- [232] Cooper, Mark I. Curved surface areas are related to second polar moments of area in Centrobolus Cook, 1897. (IN PREP.).
- [233] Cooper, Mark I. Curved surface areas are related to moments of inertia in Centrobolus Cook, 1897. (IN PREP.).
- [234] Cooper, Mark I. Curved surface areas are related to mass in Centrobolus Cook, 1897. (IN PREP.).
- [235] Cooper, Mark I. Curved surface areas in male and female Centrobolus Cook, 1897. (IN PREP.).

- [236] COOPER, MARK. Humidity varies with precipitation in red millipedes *Centrobolus* Cook, 1897. (IN PREP.).
- [237] COOPER, MARK IAN. Minimum temperature varies with rainy days in red millipedes *Centrobolus* Cook, 1897. (IN PREP.).
- [238] COOPER, MARK IAN. Minimum temperature varies with precipitation in red millipedes *Centrobolus* Cook, 1897. (IN PREP.).
- [239] COOPER, MARK. The average temperature varies with humidity in red millipedes *Centrobolus* Cook, 1897. (IN PREP.).
- [240] COOPER, MARK. The average temperature varies with the maximum temperature in red millipedes *Centrobolus* Cook, 1897. (IN PREP.).
- [241] COOPER, MARK. The average temperature varies with the minimum temperature in red millipedes *Centrobolus* Cook, 1897. (IN PREP.).
- [242] COOPER, MARK. The average temperature varies with precipitation in red millipedes *Centrobolus* Cook, 1897. (IN PREP.).
- [243] COOPER, MARK I. The average temperature varies with rainy days in red millipedes *Centrobolus* Cook, 1897. (IN PREP.).
- [244] COOPER, MARK I. Precipitation varies with rainy days in red millipedes *Centrobolus* Cook, 1897. (IN PREP.).
- [245] COOPER, MARK I. Humidity varies with rainy days in red millipedes *Centrobolus* Cook, 1897. (IN PREP.).
- [246] Cooper, Mark I Maximum temperature varies with rainy days in red millipedes *Centrobolus* Cook, 1897. (IN PREP.).
- [247] Cooper, Mark I Maximum temperature varies with precipitation in red millipedes *Centrobolus* Cook, 1897. (IN PREP.).
- [248] Cooper, Mark I Maximum temperature varies with minimum temperature in red millipedes *Centrobolus* Cook, 1897. (IN PREP.).
- [249] Cooper, Mark I. Humidity varies with average Sun hours in red millipedes *Centrobolus* Cook, 1897. (IN PREP.).
- [250] Cooper, Mark I. Average Sun hours vary with minimum temperature in red millipedes *Centrobolus* Cook, 1897. (IN PREP.).
- [251] Cooper, Mark I. Humidity varies with minimum temperature in red millipedes *Centrobolus* Cook, 1897. (IN PREP.).
- [252] Cooper, Mark I Temperature varies with the highest total hours of sunshine in *Centrobolus* Cook, 1897. (IN PREP.).
- [253] Cooper, Mark I Minimum temperature varies with the highest total hours of sunshine in *Centrobolus* Cook, 1897. (IN PREP.).
- [254] Cooper, Mark. DOES TARSAL PAD LENGTH VARY WITH MOMENTS OF INERTIA IN *CENTROBOLUS* COOK, 1897? (IN PREP.).
- [255] COOPER, M. The differences between driest and wettest months, the driest month, the wettest month, the month with the lowest number of rainy days, and the highest relative humidity vary with the distance to the closest airport across the distribution of pill millipedes *Sphaerotherium* Brandt, 1833. (IN PREP.).
- [256] COOPER, M. I. The difference between driest and wettest months, the driest month, the wettest month, the month with the lowest number of rainy days, and the highest relative humidity vary with the distance to the closest airport across the distribution of pill millipedes *Sphaerotherium* Brandt, 1833. (IN PREP.).
- [257] COOPER, M. I. Difference between the driest and wettest months varies with the highest relative humidity in determining the size of female pill millipedes *Sphaerotherium* Brandt, 1833. (IN PREP.).
- [258] COOPER, M. I. Warmest months vary with the highest relative humidity in determining the size of female pill millipedes *Sphaerotherium* Brandt, 1833. (IN PREP.).
- [259] COOPER, MARK IAN. Mean annual temperature varies with the highest average temperature in determining the size of female pill millipedes *Sphaerotherium* Brandt, 1833. (IN PREP.).
- [260] Cooper, Mark I Mean annual temperature varies with the lowest average temperature in determining the size of female pill millipedes *Sphaerotherium* Brandt, 1833. (IN PREP.).
- [261] COOPER, MARK IAN. One independent variable and two dependent variables: Lowest relative humidity is dependent on temperature variation throughout the year while the mean annual temperature is independent in determining the size of pill millipedes *Sphaerotherium* Brandt, 1833. (IN PREP.).
- [262] COOPER, MARK IAN. Male surface area-to-volume ratio tracks average temperature variation in *Sphaerotherium* Brandt, 1833. (IN PREP.).
- [263] Cooper, Mark I Female surface area-to-volume ratios are related to the lowest relative humidity in *Sphaerotherium* Brandt, 1833. (IN PREP.).
- [264] Cooper, Mark. The wettest month varies with the distance to the closest airport across the distribution of pill millipedes *Sphaerotherium* Brandt, 1833. (IN PREP.).
- [265] Cooper, Mark. The highest relative humidity varies with the distance to the closest airport across the distribution of pill millipedes *Sphaerotherium* Brandt, 1833. (IN PREP.).
- [266] Cooper, Mark. The driest month varies with the distance to the closest airport across the distribution of pill millipedes *Sphaerotherium* Brandt, 1833. (IN PREP.).
- [267] Cooper, Mark. The month with the lowest number of rainy days varies with the distance to the closest airport across the distribution of pill millipedes *Sphaerotherium* Brandt, 1833. (IN PREP.).
- [268] Cooper, Mark. The difference between the driest and wettest months varies with the distance to the closest airport across the distribution of pill millipedes *Sphaerotherium* Brandt, 1833. (IN PREP.).
- [269] COOPER, MARK IAN. CORRELATION COEFFICIENT MATRIX FOR SEVEN FACTORS IN THE CLIMATE OF MTUNZINI ON THE EAST COAST OF SOUTH AFRICA. (IN PREP.).
- [270] Cooper, Mark I Surface area and the surface-area-to-volume ratio vary with the highest total hours of sunshine in *Centrobolus* Cook, 1897. (IN PREP.).
- [271] Cooper, Mark I Surface area and the surface-area-to-volume ratio vary marginally or non significantly

- with the highest and lowest relative humidity in *Centrobolus Cook*, 1897. (IN PREP.).
- [272] Cooper Mark I Surface area and the surface area-to-volume ratio varies with hours of sunshine throughout the year in *Centrobolus Cook*, 1897. (IN PREP.).
- [273] COOPER, MARK I. Surface area variation with time in red millipedes *Centrobolus Cook*, 1897. (IN PREP.).
- [274] Cooper, M. Ian. PROBABLE SOLUTION OF RAINY DAY VARIATIONS FOR SET MATING FREQUENCIES AND MALE AND FEMALE WIDTHS IN *CENTROBOLUS COOK*, 1897. (IN PREP.).
- [275] Cooper, Mark I The surface area varies with minimum temperature in *Centrobolus Cook*, 1897. (IN PREP.).
- [276] COOPER, MARK IAN. ARE COLEOPOD SPINE LENGTH AND NUMBER RELATED TO MOMENTS OF INERTIA IN *CENTROBOLUS COOK*, 1897? (IN PREP.).
- [277] Cooper, Mark. DOES MASS VARY WITH MOMENTS OF INERTIA IN *CENTROBOLUS COOK*, 1897? (IN PREP.).
- [278] Cooper, Mark. DOES MASS VARY WITH SEX RATIO IN *CENTROBOLUS COOK*, 1897? (IN PREP.).
- [279] COOPER, MARK. DOES EJACULATE VOLUME VARY WITH SEX RATIO IN *CENTROBOLUS COOK*, 1897? (IN PREP.).
- [280] COOPER, MARK. DOES EJACULATE VOLUME VARY WITH MOMENTS OF INERTIA IN *CENTROBOLUS COOK*, 1897? (IN PREP.).
- [281] COOPER, MARK. DOES EJACULATE VOLUME VARY WITH FEMALE MASS IN *CENTROBOLUS COOK*, 1897? (IN PREP.).
- [282] Cooper Mark I The surface area varies with temperature in *Centrobolus Cook*, 1897. *Environment Science Archives* (In Prep.).
- [283] Cooper Mark. SECOND POLAR MOMENTS OF AREA WITH TIME IN FOREST RED MILLIPEDES *CENTROBOLUS COOK*, 1897. (IN PREP.).
- [284] Cooper Mark. SECOND POLAR MOMENTS OF AREA ARE RELATED TO HOURS OF SUNSHINE THROUGHOUT THE YEAR IN RED MILLIPEDES *CENTROBOLUS COOK*, 1897. (IN PREP.).
- [285] Coper Mark. SECOND POLAR MOMENTS OF AREA ARE RELATED TO TEMPERATURE IN FOREST RED MILLIPEDES *CENTROBOLUS COOK*, 1897. (IN PREP.).
- [286] Cooper Mark. SECOND POLAR MOMENTS OF AREA ARE RELATED TO VOLUME IN FOREST RED MILLIPEDES *CENTROBOLUS COOK*, 1897. (IN PREP.).
- [287] Cooper M. SECOND POLAR MOMENTS OF AREA ARE RELATED TO SURFACE AREA IN FOREST RED MILLIPEDES *CENTROBOLUS COOK*, 1897. (IN PREP.).
- [288] COOPER, MARK I. VOLUME IS RELATED TO SURFACE AREA ACROSS *CENTROBOLUS COOK*, 1897. *Universe Int. J. Interdiscip. Res.* 2022; 3(7). (In Review).
- [289] COOPER, MARK. THE SURFACE AREA IS RELATED TO SEXUAL SIZE DIMORPHISM ACROSS *CENTROBOLUS COOK*, 1897. *Universe Int. J. Interdiscip. Res.* 2022; 3(7). (In Review).
- [290] Cooper Mark I. PRECIPITATION DURING THE DRIEST MONTH IS marginally related to LONGITUDE ACROSS THE DISTRIBUTION OF RED MILLIPEDES *CENTROBOLUS COOK*, 1897. *Munis Entomology & Zoology*, 18(1).
- [291] Cooper Mark I. DOES SEXUAL SIZE DIMORPHISM VARY WITH THE FEWEST DAILY HOURS OF SUNSHINE IN RED MILLIPEDES *CENTROBOLUS COOK*, 1897? *Munis Entomology & Zoology*, 18(1).
- [292] Cooper Mark I. IS MASS CORRELATED WITH LENGTH AMONG RED MILLIPEDES *CENTROBOLUS COOK*, 1897? *Munis Entomology & Zoology*, 18(1). <http://hdl.handle.net/10019.1/125806>.
- [293] Cooper Mark I. THE HIGHEST DAILY HOURS OF SUNSHINE ARE RELATED TO LONGITUDE ACROSS THE DISTRIBUTION OF PILL MILLIPEDES *SPHAEROTHERIUM BRANDT*, 1833. *Munis Entomology & Zoology*, 18(1) (In Press). <http://hdl.handle.net/10019.1/125806>.
- [294] Cooper, Mark I. QUASIPROBABLE SOLUTION OF RAINY DAY VARIATIONS FOR SET MATING FREQUENCIES AND MALE AND FEMALE LENGTHS IN *CENTROBOLUS COOK*, 1897. *Munis Entomology & Zoology*, 18(1).
- [295] Cooper, Mark I. SECOND POLAR MOMENTS OF AREA IN MALE AND FEMALE *CENTROBOLUS COOK*, 1897. *Munis Entomology & Zoology*, 18(1) (In Press).
- [296] COOPER, M. Sexual size dimorphism may be related to sex ratios in *Centrobolus Cook*, 1897. *International Journal of Engineering Science Invention Research & Development.* 2022; 9(6).
- [297] Cooper Mark. Surface area to volume ratio correlates with the month with the lowest daily hours of sunshine in pill millipedes *Sphaerotherium Brandt*, 1833. (In Prep.).
- [298] Cooper Mark. Surface area to volume ratio correlates with the month with the most daily hours of sunshine in pill millipedes *Sphaerotherium Brandt*, 1833. (In Prep.).
- [299] Cooper Mark. Male surface area to volume ratio tracks average temperature in pill millipedes *Sphaerotherium Brandt*, 1833. (In Prep.).
- [300] Cooper Mark. ABUNDANCE IS RELATED TO HIGHEST RELATIVE HUMIDITY IN FOREST RED MILLIPEDES *CENTROBOLUS COOK*, 1897. (In Prep.).
- [301] Cooper Mark. MONTH WITH THE HIGHEST NUMBER OF RAINY DAYS IS RELATED TO HIGHEST RELATIVE HUMIDITY IN FOREST REDMILLIPEDES *CENTROBOLUS COOK*, 1897. (In Prep.).
- [302] Cooper Mark. LOWEST RELATIVE HUMIDITY IS RELATED TO HIGHEST RELATIVE HUMIDITY IN FOREST RED MILLIPEDES *CENTROBOLUS COOK*, 1897. (In Prep.).
- [303] Cooper Mark. SURFACE AREA-TO-VOLUME RATIO IS RELATED TO LOWEST NUMBER OF DAILY HOURS OF SUNSHINE IN *CENTROBOLUS COOK*, 1897. (In Prep.).



- [304] Cooper Mark. FEMALE SURFACE AREA-TO-VOLUME RATIO IS RELATED TO MINIMUM TEMPERATURE IN CENTROBOLUS COOK, 1897. (In Prep.).
- [305] Cooper Mark. SURFACE AREA-TO-VOLUME RATIO IS RELATED TO TEMPERATURE IN CENTROBOLUS COOK, 1897. (In Prep.).
- [306] Cooper Mark. SURFACE AREA-TO-VOLUME RATIO IS RELATED TO HIGHEST TOTAL HOURS OF SUNSHINE IN A MONTH IN CENTROBOLUS COOK, 1897. (In Prep.).
- [307] Cooper Mark. SURFACE AREA-TO-VOLUME RATIO IS RELATED TO HOURS OF SUNSHINE THROUGHOUT THE YEAR IN CENTROBOLUS COOK, 1897. (In Prep.).
- [308] Cooper Mark. SURFACE AREA-TO-VOLUME RATIO ARE RELATED TO SECOND POLAR MOMENTS OF INERTNESS IN CENTROBOLUS COOK, 1897. (In Prep.).
- [309] Cooper Mark. STERNITE PROMINENCE IS RELATED TO SECOND POLAR MOMENTS OF INERTNESS IN CENTROBOLUS COOK, 1897. (In Prep.).
- [310] Cooper Mark. STERNITE PROMINENCE IS RELATED TO LOWEST RELATIVE HUMIDITY IN CENTROBOLUS COOK, 1897. (In Prep.).
- [311] Cooper Mark. Surface area to volume ratio correlates with the lowest average temperature in pill millipedes Sphaerotherium Brandt, 1833. (In Prep.).
- [312] Cooper Mark. Male surface area to volume ratio correlates with female surface area to volume ratio in pill millipedes Sphaerotherium Brandt, 1833. (In Prep.).
- [313] Cooper Mark. Male surface area to volume ratio correlates with the lowest average temperature in pill millipedes Sphaerotherium Brandt, 1833. (In Prep.).
- [314] Cooper Mark. Mean annual temperature varies with the lowest average temperature in determining the size of female pill millipedes Sphaerotherium Brandt, 1833. (In Prep.).
- [315] Cooper Mark. Mean annual temperature varies with the highest average temperature in determining the size of female pill millipedes Sphaerotherium Brandt, 1833. (In Prep.).
- [316] Cooper Mark. The driest months varies with the distance to the closest airport across the distribution of pill millipedes Sphaerotherium Brandt, 1833. (In Prep.).
- [317] Cooper Mark. The wettest months varies with the distance to the closest airport across the distribution of pill millipedes Sphaerotherium Brandt, 1833. (In Prep.).
- [318] Cooper Mark. The difference between the driest and wettest months varies with the distance to the closest airport across the distribution of pill millipedes Sphaerotherium Brandt, 1833. (In Prep.).
- [319] SURFACE AREA IS RELATED TO WIDTH IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [320] Cooper Mark. SURFACE AREA IS RELATED TO LENGTH IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [321] Cooper Mark. SPECIES RICHNESS IS MARGINALLY RELATED TO LENGTH IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [322] Cooper Mark. SECOND POLAR MOMENTS OF INERTNESS ARE RELATED TO SPECIES RICHNESS IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [323] Cooper Mark. SPECIES RICHNESS IS RELATED TO LOWEST RELATIVE HUMIDITY IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [324] Cooper Mark. SPECIES RICHNESS IS RELATED TO PRECIPITATION IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [325] Cooper Mark. SPECIES RICHNESS IS RELATED TO MAXIMUM TEMPERATURE IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [326] Cooper Mark. MOMENTS OF INERTIA ARE RELATED TO WIDTH IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [327] Cooper Mark. MOMENTS OF INERTIA ARE RELATED TO LENGTH IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [328] Cooper Mark. WIDTH MODELS WITH MATING FREQUENCY IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [329] Cooper Mark. FEMALE WIDTH IS RELATED TO LOWEST NUMBER OF HOURS OF SUNSHINE IN A DAY IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [330] Cooper Mark. LOWEST NUMBER OF DAILY HOURS OF SUNSHINE IN A DAY IS RELATED TO LENGTH IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [331] Cooper Mark. WIDTH IS RELATED TO HOURS OF SUNSHINE THROUGHOUT THE YEAR IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [332] Cooper Mark. LENGTH IS RELATED TO HOURS OF SUNSHINE THROUGHOUT THE YEAR IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [333] Cooper Mark. WIDTH IS RELATED TO HIGHEST TOTAL HOURS OF SUNSHINE IN A MONTH IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [334] Cooper Mark. LENGTH IS RELATED TO HIGHEST TOTAL HOURS OF SUNSHINE IN A MONTH IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [335] Cooper Mark. SECOND POLAR MOMENTS OF INERTNESS ARE RELATED TO WIDTH IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [336] Cooper Mark. SECOND POLAR MOMENTS OF INERTNESS ARE RELATED TO LENGTH IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [337] Cooper Mark. CURVED SURFACE AREA IS RELATED TO WIDTH IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).

- [338] Cooper Mark. CURVED SURFACE AREA IS RELATED TO LENGTH IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [339] Cooper Mark. MATING FREQUENCIES ARE RELATED TO MAXIMUM OCEAN WATER TEMPERATURES IN COASTAL FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [340] Cooper Mark. MATING FREQUENCIES ARE RELATED TO MINIMUM OCEAN WATER TEMPERATURES IN COASTAL FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [341] Cooper Mark. MATING FREQUENCIES ARE RELATED TO MEAN OCEAN WATER TEMPERATURES IN COASTAL FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [342] Cooper Mark. LENGTH IS RELATED TO MEAN OCEAN WATER TEMPERATURES IN COASTAL FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [343] Cooper Mark. WIDTH IS RELATED TO MEAN OCEAN WATER TEMPERATURES IN COASTAL FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [344] Cooper Mark. VOLUME IS RELATED TO MEAN OCEAN WATER TEMPERATURES IN COASTAL FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [345] Cooper Mark. PRECIPITATION IS RELATED TO MEAN OCEAN WATER TEMPERATURES IN COASTAL FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [346] Cooper Mark. CURVED SURFACE AREA IS RELATED TO MEAN OCEAN WATER TEMPERATURES IN COASTAL FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [347] Cooper Mark. SECOND POLAR MOMENTS OF INERTNESS ARE RELATED TO MEAN OCEAN WATER TEMPERATURES IN COASTAL FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [348] Cooper Mark. LOWEST NUMBER OF DAILY HOURS OF SUNSHINE IN A DAY IS RELATED TO MEAN OCEAN WATER TEMPERATURE NEAR FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [349] Cooper Mark. MINIMUM TEMPERATURE IS RELATED TO MEAN OCEAN WATER TEMPERATURES NEAR COASTAL FOREST REDMILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [350] Cooper Mark. MAXIMUM TEMPERATURE IS RELATED TO MEAN OCEAN WATER TEMPERATURES NEAR COASTAL FOREST REDMILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [351] Cooper Mark. SURFACE AREA IS RELATED TO MEAN OCEAN WATER TEMPERATURES IN COASTAL FOREST REDMILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [352] Cooper Mark. MONTH WITH THE HIGHEST NUMBER OF RAINY DAYS IS RELATED TO MEAN OCEAN WATER TEMPERATURES IN COASTAL FOREST REDMILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [353] Cooper Mark. MEAN OCEAN WATER TEMPERATURE IS RELATED TO HIGHEST NUMBER OF DAILY HOURS OF SUNSHINE IN A MONTH IN FOREST REDMILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [354] Cooper Mark. HOURS OF SUNSHINE THROUGHOUT THE YEAR IS RELATED TO MEAN OCEAN WATER TEMPERATURE NEAR FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [355] Cooper Mark. TEMPERATURE IS RELATED MEAN OCEAN WATER TEMPERATURE IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [356] Cooper Mark. SEXUAL SIZE DIMORPHISM IS CORRELATED TO MEAN OCEAN WATER TEMPERATURE IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [357] Cooper Mark. TEMPERATURE IS RELATED MINIMUM OCEAN WATER TEMPERATURE IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [358] Cooper Mark. SEXUAL SIZE DIMORPHISM IS CORRELATED TO MINIMUM OCEAN WATER TEMPERATURE IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [359] Cooper Mark. MINIMUM OCEAN WATER TEMPERATURE IS RELATED TO HIGHEST NUMBER OF DAILY HOURS OF SUNSHINE IN A MONTH IN FOREST REDMILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [360] Cooper Mark. HOURS OF SUNSHINE THROUGHOUT THE YEAR IS RELATED TO MINIMUM OCEAN WATER TEMPERATURE NEAR FOREST REDMILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [361] Cooper Mark. MONTH WITH THE HIGHEST NUMBER OF RAINY DAYS IS RELATED TO MINIMUM OCEAN WATER TEMPERATURES IN COASTAL FOREST REDMILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [362] Cooper Mark. SURFACE AREA IS RELATED TO MINIMUM OCEAN WATER TEMPERATURES IN COASTAL FOREST REDMILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [363] Cooper Mark. MAXIMUM TEMPERATURE IS RELATED TO MINIMUM OCEAN WATER TEMPERATURES NEAR COASTAL FOREST REDMILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [364] Cooper Mark. MINIMUM TEMPERATURE IS RELATED TO MINIMUM OCEAN WATER TEMPERATURES NEAR COASTAL FOREST REDMILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [365] Cooper Mark. LOWEST NUMBER OF DAILY HOURS OF SUNSHINE IN A DAY IS RELATED TO MINIMUM OCEAN WATER TEMPERATURE NEAR FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).

- [366] Cooper Mark. SECOND POLAR MOMENTS OF INERTNESS ARE RELATED TO MINIMUM OCEAN WATER TEMPERATURES IN COASTAL FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [367] Cooper Mark. HIGHEST RELATIVE HUMIDITY IS RELATED TO MINIMUM OCEAN WATER TEMPERATURES IN COASTAL FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [368] Cooper Mark. CURVED SURFACE AREA IS RELATED TO MINIMUM OCEAN WATER TEMPERATURES IN COASTAL FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [369] Cooper Mark. PRECIPITATION IS RELATED TO MINIMUM OCEAN WATER TEMPERATURES IN COASTAL FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [370] Cooper Mark. VOLUME IS RELATED TO MINIMUM OCEAN WATER TEMPERATURES IN COASTAL FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [371] Cooper Mark. WIDTH IS RELATED TO MINIMUM OCEAN WATER TEMPERATURES IN COASTAL FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [372] Cooper Mark. LENGTH IS RELATED TO MINIMUM OCEAN WATER TEMPERATURES IN COASTAL FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [373] Cooper Mark. WIDTH IS RELATED TO HIGHEST OCEAN WATER TEMPERATURES IN COASTAL FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [374] Cooper Mark. LENGTH IS RELATED TO HIGHEST OCEAN WATER TEMPERATURES IN COASTAL FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [375] Cooper Mark. LOWEST RELATIVE HUMIDITY IS RELATED TO HIGHEST OCEAN WATER TEMPERATURES IN COASTAL FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [376] Cooper Mark. HIGHEST RELATIVE HUMIDITY IS RELATED TO HIGHEST OCEAN WATER TEMPERATURES IN COASTAL FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [377] Cooper Mark. CURVED SURFACE AREA IS RELATED TO HIGHEST OCEAN WATER TEMPERATURES IN COASTAL FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [378] Cooper Mark. PRECIPITATION IS RELATED TO HIGHEST OCEAN WATER TEMPERATURES IN COASTAL FOREST REDMILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [379] Cooper Mark. MONTH WITH THE HIGHEST NUMBER OF RAINY DAYS IS RELATED TO HIGHEST OCEAN WATER TEMPERATURES IN COASTAL FOREST REDMILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [380] Cooper Mark. SURFACE AREA IS RELATED TO HIGHEST OCEAN WATER TEMPERATURES IN COASTAL FOREST REDMILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [381] Cooper Mark. MAXIMUM TEMPERATURE IS RELATED TO HIGHEST OCEAN WATER TEMPERATURES NEAR COASTAL FOREST REDMILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [382] Cooper Mark. MINIMUM TEMPERATURE IS RELATED TO HIGHEST OCEAN WATER TEMPERATURES NEAR COASTAL FOREST REDMILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [383] Cooper Mark. LOWEST NUMBER OF DAILY HOURS OF SUNSHINE IN A DAY IS RELATED TO HIGHEST OCEAN WATER TEMPERATURE NEAR FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [384] Cooper Mark. LATITUDE IS RELATED TO HIGHEST OCEAN WATER TEMPERATURES NEAR COASTAL FOREST REDMILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [385] Cooper Mark. LONGITUDE IS RELATED TO HIGHEST OCEAN WATER TEMPERATURES NEAR COASTAL FOREST REDMILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [386] Cooper Mark. AVERAGE TEMPERATURE IS RELATED TO HIGHEST OCEAN WATER TEMPERATURES NEAR COASTAL FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [387] Cooper Mark. AVERAGE TEMPERATURE VARIATION IS RELATED TO LENGTH IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [388] Cooper Mark. CURVED SURFACE AREA IS RELATED AVERAGE TEMPERATURE VARIATION IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [389] Cooper Mark. AVERAGE TEMPERATURE VARIATION IS RELATED TO SURFACE AREA IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [390] Cooper Mark. CURVED SURFACE AREA IS RELATED TO SPECIES RICHNESS IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [391] Cooper Mark. CURVED SURFACE AREA IS RELATED TO SECOND POLAR MOMENTS OF INERTIA IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [392] Cooper Mark. CURVED SURFACE AREA IS RELATED TO MINIMUM TEMPERATURE IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [393] Cooper Mark. CURVED SURFACE AREA IS RELATED TO LONGITUDE IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [394] Cooper Mark. LOWEST NUMBER OF DAILY HOURS OF SUNSHINE IN A DAY IS RELATED TO LONGITUDE IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).
- [395] Cooper Mark. LOWEST NUMBER OF DAILY HOURS OF SUNSHINE IN A DAY IS RELATED TO LATITUDE IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).

[396]	Cooper Mark. MINIMUM TEMPERATURE IS RELATED TO LATITUDE IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).	981.747706 1148.50596
[397]	Cooper Mark. MINIMUM TEMPERATURE IS RELATED TO LONGITUDE IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).	766.498501 (low) 1903.39062
[398]	Cooper Mark. TEMPERATURE IS RELATED TO LONGITUDE IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).	44.12467 766.498501
[399]	Cooper Mark. PRECIPITATION IS RELATED TO LONGITUDE IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).	2321.06144 263.833465
[400]	Cooper Mark. PRECIPITATION IS RELATED TO LATITUDE IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).	1239.43386 766.498501
[401]	Cooper Mark. HIGHEST TOTAL HOURS OF SUNSHINE IN A MONTH IS RELATED TO LONGITUDE IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).	1148.50596 1335.65692
[402]	Cooper Mark. HOURS OF SUNSHINE THROUGHOUT THE YEAR IS RELATED TO LONGITUDE IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).	263.833465 588.749544
[403]	Cooper Mark. DISTANCE TO THE NEAREST AIRPORT IS RELATED TO LATITUDE IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).	443.869501 588.749544 (low)
[404]	Cooper Mark. SPECIES RICHNESS IS NOT RELATED TO DISTANCE TO THE NEAREST AIRPORT IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).	402.12386 2035.75204
[405]	Cooper Mark. MATING FREQUENCY IS RELATED TO DISTANCE TO THE NEAREST AIRPORT IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).	<b>APPENDIX 2.</b> Second polar moments of area (mm <sup>4</sup> ) and species richness for female <i>Centrobolus</i> Cook, 1897. (Low species richness in parentheses). 2035.75204 (low)
[406]	Cooper Mark. DISTANCE TO THE NEAREST AIRPORT IS RELATED TO LONGITUDE IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).	644.12467 488.784066
[407]	Cooper Mark. DISTANCE TO THE NEAREST AIRPORT IS RELATED TO MONTH WITH THE HIGHEST NUMBER OF RAINY DAYS IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).	588.749544 644.12467
[408]	Cooper Mark. STERNITE PROMINENCE IS RELATED TO ABUNDANCE IN CENTROBOLUS COOK, 1897. (In Prep.).	3358.5787 3771.48199 (low)
[409]	Cooper Mark. MATING FREQUENCY IS RELATED TO HIGHEST RELATIVE HUMIDITY IN FOREST RED MILLIPEDES CENTROBOLUS COOK, 1897. (In Prep.).	3165.33069 766.498501

**APPENDIX 1.** Second polar moments of area (mm<sup>4</sup>) and species richness for male *Centrobolus* Cook, 1897. (Low species richness in parentheses).

402.12386 (low)  
 1239.43386  
 644.12467  
 402.12386