

Brent D Opell

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3271778/publications.pdf>

Version: 2024-02-01

72
papers

1,713
citations

257450

24
h-index

330143

37
g-index

73
all docs

73
docs citations

73
times ranked

629
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Correlated evolution between orb weaver glue droplets and supporting fibres maintains their distinct biomechanical roles in adhesion. <i>Journal of Evolutionary Biology</i> , 2022, 35, 879-890. | 1.7 | 4 |
| 2 | Water harvesting during orb web recycling. <i>Journal of Arachnology</i> , 2021, 48, . | 0.5 | 1 |
| 3 | Protein composition and associated material properties of cobweb spiders'™ gumfoot glue droplets. <i>Integrative and Comparative Biology</i> , 2021, 61, 1459-1480. | 2.0 | 10 |
| 4 | Humidity mediated performance and material properties of orb weaving spider adhesive droplets. <i>Acta Biomaterialia</i> , 2021, 131, 440-451. | 8.3 | 6 |
| 5 | Linking properties of an orb-weaving spider's capture thread glycoprotein adhesive and flagelliform fiber components to prey retention time. <i>Ecology and Evolution</i> , 2019, 9, 9841-9854. | 1.9 | 9 |
| 6 | Orb weaver glycoprotein is a smart biological material, capable of repeated adhesion cycles. <i>Die Naturwissenschaften</i> , 2019, 106, 10. | 1.6 | 7 |
| 7 | Properties of orb weaving spider glycoprotein glue change during <i>Argiope trifasciata</i> web construction. <i>Scientific Reports</i> , 2019, 9, 20279. | 3.3 | 9 |
| 8 | Tuning orb spider glycoprotein glue performance to habitat humidity. <i>Journal of Experimental Biology</i> , 2018, 221, . | 1.7 | 29 |
| 9 | Elastic modulus and toughness of orb spider glycoprotein glue. <i>PLoS ONE</i> , 2018, 13, e0196972. | 2.5 | 13 |
| 10 | Humidity-mediated changes in an orb spider's glycoprotein adhesive impact prey retention time. <i>Journal of Experimental Biology</i> , 2017, 220, 1313-1321. | 1.7 | 16 |
| 11 | Around the World in Eight Million Years: Historical Biogeography and Evolution of the Spray Zone Spider <i>Amaurobioides</i> (Araneae: Anyphaenidae). <i>PLoS ONE</i> , 2016, 11, e0163740. | 2.5 | 31 |
| 12 | Phylogeography of Australian and New Zealand spray zone spiders (Anyphaenidae: <i>Amaurobioides</i>): Moa's Ark loses a few more passengers. <i>Biological Journal of the Linnean Society</i> , 2016, 118, 959-969. | 1.6 | 7 |
| 13 | The impact of UVA on the glycoprotein glue of orb-weaving spider capture thread from a diurnal and a nocturnal species (Araneae: Araneidae). <i>Journal of Arachnology</i> , 2016, 44, 401-404. | 0.5 | 6 |
| 14 | The stability of hygroscopic compounds in orb-web spider viscous thread. <i>Journal of Arachnology</i> , 2015, 43, 152-157. | 0.5 | 9 |
| 15 | A re-evaluation of the formula to estimate the volume of orb web glue droplets. <i>Journal of Arachnology</i> , 2015, 43, 97-100. | 0.5 | 22 |
| 16 | Spiders Tune Glue Viscosity to Maximize Adhesion. <i>ACS Nano</i> , 2015, 9, 11472-11478. | 14.6 | 58 |
| 17 | The impact of UVB radiation on the glycoprotein glue of orb-weaving spider capture thread. <i>Journal of Experimental Biology</i> , 2015, 218, 2675-2684. | 1.7 | 13 |
| 18 | Temperature mediates the effect of humidity on the viscoelasticity of glycoprotein glue within the droplets of an orb-weaving spider's prey capture threads. <i>Journal of Experimental Biology</i> , 2014, 217, 1563-9. | 1.7 | 32 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | Prey Capture Adhesives Produced by Orb-Weaving Spiders. <i>Biologically-inspired Systems</i> , 2014, , 203-217. | 0.2 | 9 |
| 20 | Cribellar Thread. , 2013, , 303-315. | | 14 |
| 21 | Environmental response and adaptation of glycoprotein glue within the droplets of viscous prey capture threads from araneoid spider orb-webs. <i>Journal of Experimental Biology</i> , 2013, 216, 3023-34. | 1.7 | 40 |
| 22 | Adhesive compatibility of cribellar and viscous prey capture threads and its implication for the evolution of orb-weaving spiders. <i>Journal of Experimental Zoology</i> , 2011, 315A, 376-384. | 1.2 | 21 |
| 23 | Constraints on the adhesion of viscous threads spun by orb-weaving spiders: the tensile strength of glycoprotein glue exceeds its adhesion. <i>Journal of Experimental Biology</i> , 2011, 214, 2237-2241. | 1.7 | 17 |
| 24 | Humidity affects the extensibility of an orb-weaving spider's viscous thread droplets. <i>Journal of Experimental Biology</i> , 2011, 214, 2988-2993. | 1.7 | 55 |
| 25 | Bergmann's size cline in New Zealand marine spray zone spiders (Araneae: Anyphaenidae:). <i>Tj ETQq1 1 0.784314 rgBT /Overlock 10 T 5</i> | 1.6 | 7 |
| 26 | The role of granules within viscous capture threads of orb-weaving spiders. <i>Journal of Experimental Biology</i> , 2010, 213, 339-346. | 1.7 | 59 |
| 27 | The adhesive delivery system of viscous capture threads spun by orb-weaving spiders. <i>Journal of Experimental Biology</i> , 2009, 212, 3026-3034. | 1.7 | 45 |
| 28 | Daily and seasonal changes in the stickiness of viscous capture threads in <i>Argiope aurantia</i> and <i>Argiope trifasciata</i> orb-webs. <i>Journal of Experimental Zoology</i> , 2009, 311A, 217-225. | 1.2 | 11 |
| 29 | Adhesive efficiency of spider prey capture threads. <i>Zoology</i> , 2009, 112, 16-26. | 1.2 | 37 |
| 30 | Persistent stickiness of viscous capture threads produced by araneoid orb-weaving spiders. <i>Journal of Experimental Zoology</i> , 2008, 309A, 11-16. | 1.2 | 20 |
| 31 | The contribution of axial fiber extensibility to the adhesion of viscous capture threads spun by orb-weaving spiders. <i>Journal of Experimental Biology</i> , 2008, 211, 2243-2251. | 1.7 | 30 |
| 32 | Adhesive recruitment by the viscous capture threads of araneoid orb-weaving spiders. <i>Journal of Experimental Biology</i> , 2007, 210, 553-560. | 1.7 | 79 |
| 33 | The effect of insect surface features on the adhesion of viscous capture threads spun by orb-weaving spiders. <i>Journal of Experimental Biology</i> , 2007, 210, 2352-2360. | 1.7 | 38 |
| 34 | Genetic relationships of Amaurobioides (Anyphaenidae) spiders from the southeastern coast of New Zealand. <i>Zootaxa</i> , 2007, 1425, . | 0.5 | 10 |
| 35 | The body size of the New Zealand orb-weaving spider <i>Waitkera waitakerensis</i> (Uloboridae) is directly related to temperature and affects fecundity. <i>Invertebrate Biology</i> , 2007, 126, 183-190. | 0.9 | 10 |
| 36 | THE FEATURES OF CAPTURE THREADS AND ORB-WEBS PRODUCED BY UNFED <i>CYCLOSA TURBINATA</i> (ARANEAE: ARANEIDAE). <i>Journal of Arachnology</i> , 2006, 34, 427-434. | 0.5 | 16 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | MOLECULAR PHYLOGENETIC EVIDENCE FOR THE PARALLEL EVOLUTION OF ROCK ECOMORPHS IN THE NEW ZEALAND ORB-WEAVING SPIDER WAITKERA WAITAKERENSIS (FAMILY ULOBORIDAE). <i>Journal of Arachnology</i> , 2006, 34, 467-475. | 0.5 | 5 |
| 38 | The effects of capture spiral composition and orb-web orientation on prey interception. <i>Zoology</i> , 2006, 109, 339-345. | 1.2 | 27 |
| 39 | van der Waals and hygroscopic forces of adhesion generated by spider capture threads. <i>Journal of Experimental Biology</i> , 2003, 206, 3905-3911. | 1.7 | 80 |
| 40 | ESTIMATING THE STICKINESS OF INDIVIDUAL ADHESIVE CAPTURE THREADS IN SPIDER ORB WEBS. <i>Journal of Arachnology</i> , 2002, 30, 494-502. | 0.5 | 20 |
| 41 | HOW SPIDER ANATOMY AND THREAD CONFIGURATION SHAPE THE STICKINESS OF CRIBELLAR PREY CAPTURE THREADS. <i>Journal of Arachnology</i> , 2002, 30, 10. | 0.5 | 22 |
| 42 | Evolution of adhesive mechanisms in cribellar spider prey capture thread: evidence for van der Waals and hygroscopic forces. <i>Biological Journal of the Linnean Society</i> , 2002, 77, 1-8. | 1.6 | 65 |
| 43 | Phylogeny and taxonomy of the genera of south-western North American Euctenizinae trapdoor spiders and their relatives (Araneae: Mygalomorphae, Cyrtaucheniidae). <i>Zoological Journal of the Linnean Society</i> , 2002, 136, 487-534. | 2.3 | 48 |
| 44 | EGG SAC RECOGNITION BY FEMALE MIAGRAMMOPES ANIMOTUS (ARANEAE, ULOBORIDAE). <i>Journal of Arachnology</i> , 2001, 29, 244-248. | 0.5 | 15 |
| 45 | CRIBELLUM AND CALAMISTRUM ONTOGENY IN THE SPIDER FAMILY ULOBORIDAE: LINKING FUNCTIONALLY RELATED BUT SEPARATE SILK SPINNING FEATURES. <i>Journal of Arachnology</i> , 2001, 29, 220-226. | 0.5 | 13 |
| 46 | Capture thread extensibility of orb-weaving spiders: testing punctuated and associative explanations of character evolution. <i>Biological Journal of the Linnean Society</i> , 2000, 70, 107-120. | 1.6 | 40 |
| 47 | Changes in spinning anatomy and thread stickiness associated with the origin of orb-weaving spiders. <i>Biological Journal of the Linnean Society</i> , 1999, 68, 593-612. | 1.6 | 39 |
| 48 | Changes in spinning anatomy and thread stickiness associated with the origin of orb-weaving spiders. <i>Biological Journal of the Linnean Society</i> , 1999, 68, 593-612. | 1.6 | 2 |
| 49 | The respiratory complementarity of spider book lung and tracheal systems. , 1998, 236, 57-64. | | 14 |
| 50 | Testing Adaptive Radiation and Key Innovation Hypotheses in Spiders. <i>Evolution; International Journal of Organic Evolution</i> , 1998, 52, 403. | 2.3 | 65 |
| 51 | TESTING ADAPTIVE RADIATION AND KEY INNOVATION HYPOTHESES IN SPIDERS. <i>Evolution; International Journal of Organic Evolution</i> , 1998, 52, 403-414. | 2.3 | 134 |
| 52 | The material cost and stickiness of capture threads and the evolution of orb-weaving spiders. <i>Biological Journal of the Linnean Society</i> , 1997, 62, 443-458. | 1.6 | 56 |
| 53 | Systematics of the spider genera Mallos and Mexitlia (Araneae, Dictynidae). <i>Zoological Journal of the Linnean Society</i> , 1997, 119, 389-445. | 2.3 | 16 |
| 54 | The material cost and stickiness of capture threads and the evolution of orb-weaving spiders. <i>Biological Journal of the Linnean Society</i> , 1997, 62, 443-458. | 1.6 | 4 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 55 | Systematics of the spider genera <i>Mallos</i> and <i>Mexitlia</i> (Araneae, Dictynidae). <i>Zoological Journal of the Linnean Society</i> , 1997, 119, 389-445. | 2.3 | 2 |
| 56 | Functional Similarities of Spider Webs with Diverse Architectures. <i>American Naturalist</i> , 1996, 148, 630-648. | 2.1 | 27 |
| 57 | Ontogenetic changes in cribellum spigot number and cribellar prey capture thread stickiness in the spider family Uloboridae. <i>Journal of Morphology</i> , 1995, 224, 47-56. | 1.2 | 25 |
| 58 | Do static electric forces contribute to the stickiness of a spider's cribellar prey capture threads?. <i>The Journal of Experimental Zoology</i> , 1995, 273, 186-189. | 1.4 | 21 |
| 59 | Factors governing the stickiness of cribellar prey capture threads in the spider family Uloboridae. <i>Journal of Morphology</i> , 1994, 221, 111-119. | 1.2 | 39 |
| 60 | What forces are responsible for the stickiness of spider cribellar threads?. <i>The Journal of Experimental Zoology</i> , 1993, 265, 469-476. | 1.4 | 26 |
| 61 | Influence of web-monitoring tactics on the density of mitochondria in leg muscles of the spider family uloboridae. <i>Journal of Morphology</i> , 1992, 213, 341-347. | 1.2 | 5 |
| 62 | The relationship of book lung and tracheal systems in the spider family uloboridae. <i>Journal of Morphology</i> , 1990, 206, 211-216. | 1.2 | 13 |
| 63 | Measuring the Mass of Small Arthropod Muscles. <i>Psyche: Journal of Entomology</i> , 1990, 97, 171-174. | 0.9 | 0 |
| 64 | Disturbance behaviors in the spider <i>Uloborus glomosus</i> (Araneae, Uloboridae): possible predator avoidance strategies. <i>Canadian Journal of Zoology</i> , 1990, 68, 1090-1097. | 1.0 | 15 |
| 65 | Centers of mass and weight distribution in spiders of the family uloboridae. <i>Journal of Morphology</i> , 1989, 202, 351-359. | 1.2 | 4 |
| 66 | Functional associations between the cribellum spinning plate and capture threads of <i>Miagrammopes animotus</i> (Araneida, Uloboridae). <i>Zoomorphology</i> , 1989, 108, 263-267. | 0.8 | 17 |
| 67 | Ocular changes accompanying eye loss in the spider family uloboridae. <i>Journal of Morphology</i> , 1988, 196, 119-126. | 1.2 | 5 |
| 68 | Changes in web-monitoring forces associated with web reduction in the spider family Uloboridae. <i>Canadian Journal of Zoology</i> , 1987, 65, 1028-1034. | 1.0 | 13 |
| 69 | The influence of web monitoring tactics on the tracheal systems of spiders in the family Uloboridae (Arachnida, Araneida). <i>Zoomorphology</i> , 1987, 107, 255-259. | 0.8 | 14 |
| 70 | Changes in visual fields associated with web reduction in the spider family uloboridae. <i>Journal of Morphology</i> , 1987, 192, 87-100. | 1.2 | 8 |
| 71 | Visual fields of orb web and single line web spiders of the family Uloboridae (Arachnida, Araneida). <i>Zoomorphology</i> , 1986, 106, 199-204. | 0.8 | 6 |
| 72 | Female Genitalia of " <i>Hyptiotes cavatus</i> " (Aranae: Uloboridae). <i>BioScience</i> , 1983, 33, 513. | 4.9 | 0 |