

# James F Gillooly

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6470870/publications.pdf>

Version: 2024-02-01

38  
papers

9,028  
citations

279487

23  
h-index

329751

37  
g-index

42  
all docs

42  
docs citations

42  
times ranked

12038  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | TOWARD A METABOLIC THEORY OF ECOLOGY. <i>Ecology</i> , 2004, 85, 1771-1789.  | 1.5  | 5,745     |
| 2  | Effects of size and temperature on developmental time. <i>Nature</i> , 2002, 417, 70-73.   | 13.7 | 798       |
| 3  | The rate of DNA evolution: Effects of body size and temperature on the molecular clock. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 140-145. | 3.3  | 441       |
| 4  | Scaling of number, size, and metabolic rate of cells with body size in mammals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 4718-4723.       | 3.3  | 262       |
| 5  | Thermodynamic and metabolic effects on the scaling of production and population energy use. <i>Ecology Letters</i> , 2003, 6, 990-995.   | 3.0  | 215       |
| 6  | The metabolic basis of whole-organism RNA and phosphorus content. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 11923-11927.                   | 3.3  | 151       |
| 7  | Predicting natural mortality rates of plants and animals. <i>Ecology Letters</i> , 2008, 11, 710-716.  | 3.0  | 137       |
| 8  | The energetic basis of acoustic communication. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2010, 277, 1325-1331.  | 1.2  | 136       |
| 9  | Energetic and biomechanical constraints on animal migration distance. <i>Ecology Letters</i> , 2012, 15, 104-110.  | 3.0  | 127       |
| 10 | Energetic basis of colonial living in social insects. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 3634-3638.                                 | 3.3  | 123       |
| 11 | Allometric scaling of maximum population density: a common rule for marine phytoplankton and terrestrial plants. <i>Ecology Letters</i> , 2002, 5, 611-613.  | 3.0  | 120       |
| 12 | Nuclear DNA Content Varies with Cell Size across Human Cell Types. <i>Cold Spring Harbor Perspectives in Biology</i> , 2015, 7, a019091.   | 2.3  | 95        |
| 13 | Energetics of stress: linking plasma cortisol levels to metabolic rate in mammals. <i>Biology Letters</i> , 2016, 12, 20150867.  | 1.0  | 76        |
| 14 | LINKING GLOBAL PATTERNS IN BIODIVERSITY TO EVOLUTIONARY DYNAMICS USING METABOLIC THEORY. <i>Ecology</i> , 2007, 88, 1890-1894.   | 1.5  | 66        |
| 15 | Dinosaur Fossils Predict Body Temperatures. <i>PLoS Biology</i> , 2006, 4, e248.   | 2.6  | 60        |
| 16 | Characterizing the microbiomes of Antarctic sponges: a functional metagenomic approach. <i>Scientific Reports</i> , 2020, 10, 645.   | 1.6  | 50        |
| 17 | The mechanistic basis of the metabolic theory of ecology. <i>Oikos</i> , 2007, 116, 1073-1077.   | 1.2  | 49        |
| 18 | Effects of metabolic rate on protein evolution. <i>Biology Letters</i> , 2007, 3, 655-660.   | 1.0  | 48        |

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 19 | RESPONSE TO FORUM COMMENTARY ON "TOWARD A METABOLIC THEORY OF ECOLOGY" Ecology, 2004, 85, 1818-1821.  | 1.5  | 47        |
| 20 | Body mass scaling of passive oxygen diffusion in endotherms and ectotherms. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5340-5345.                                | 3.3  | 44        |
| 21 | Eusocial insects as superorganisms. Communicative and Integrative Biology, 2010, 3, 360-362.  | 0.6  | 35        |
| 22 | A broad-scale comparison of aerobic activity levels in vertebrates: endotherms versus ectotherms. Proceedings of the Royal Society B: Biological Sciences, 2017, 284, 20162328.                                   | 1.2  | 33        |
| 23 | Changes in body temperature influence the scaling of and aerobic scope in mammals. Biology Letters, 2007, 3, 100-103.   | 1.0  | 27        |
| 24 | Evaluating the influences of temperature, primary production, and evolutionary history on bivalve growth rates. Paleobiology, 2019, 45, 405-420.  | 1.3  | 22        |
| 25 | Explaining differences in the lifespan and replicative capacity of cells: a general model and comparative analysis of vertebrates. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 3976-3980. | 1.2  | 20        |
| 26 | Brain size varies with temperature in vertebrates. PeerJ, 2014, 2, e301.  | 0.9  | 20        |
| 27 | Response to Comment on "Global Biodiversity, Biochemical Kinetics, and the Energetic-Equivalence Rule". Science, 2003, 299, 346c-346.   | 6.0  | 11        |
| 28 | Energetic constraints on an early developmental stage: a comparative view. Biology Letters, 2008, 4, 123-126.   | 1.0  | 11        |
| 29 | Stridulation by <i>Jadera haematoloma</i> (Hemiptera: Rhopalidae): Production Mechanism and Associated Behaviors. Annals of the Entomological Society of America, 2012, 105, 118-127.                             | 1.3  | 9         |
| 30 | Vertebrate blood cell volume increases with temperature: implications for aerobic activity. PeerJ, 2014, 2, e346.   | 0.9  | 9         |
| 31 | Temperature effects on virion volume and genome length in dsDNA viruses. Biology Letters, 2016, 12, 20160023.   | 1.0  | 9         |
| 32 | Predicting egg size across temperatures in marine teleost fishes. Fish and Fisheries, 2020, 21, 1027-1033.  | 2.7  | 8         |
| 33 | Common metabolic constraints on dive duration in endothermic and ectothermic vertebrates. PeerJ, 2016, 4, e2569.  | 0.9  | 8         |
| 34 | How reliable is the biological time clock?. Nature, 2003, 424, 270-270.   | 13.7 | 5         |
| 35 | Allometric scaling of Lyapunov exponents in chaotic populations. Population Ecology, 2020, 62, 364-369.   | 0.7  | 5         |
| 36 | Host cell volume explains differences in the size of DsDNA viruses. Virus Research, 2021, 295, 198321.  | 1.1  | 3         |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 37 | Evaluating the tradeoff between offspring number and survivorship across fishes, amphibians, reptiles and mammals. <i>Oikos</i> , 2021, 130, 798-807.  | 1.2 | 3         |
| 38 | Idiographic and nomothetic approaches to heterogeneity are complementary: Response to comments on "Evaluating the influences of temperature, primary production, and evolutionary history on bivalve growth rates". <i>Paleobiology</i> , 2020, 46, 275-277. | 1.3 | 0         |