

CURRICULUM VITAE – GUSTAVO S. REQUENA

<http://campuspress.yale.edu/grequena/>

Home address: 757C Mix Avenue, Hamden, CT (USA), 06514

RESEARCH EXPERIENCE

- 2015 – 2018: Postdoctoral Fellow with Dr. Glauco Machado at Universidade de São Paulo (Brazil)
- *Theoretical and empirical research on the coevolution between paternal effort and paternity*
- 2012 – 2014: Postdoctoral Fellow with Dr. Suzanne H. Alonzo at Yale University (USA)
- *Game theory modeling to incorporate paternal care into sperm competition games (using Mathematica)*
- 2011 – 2012: Graduate Internship with Dr. Bryan D. Neff at University of Western Ontario (Canada)
- *Molecular biology techniques and paternity analyses*
- 2010 – 2011: Graduate Internship with Dr. Adam G. Jones at Texas A & M University (USA)
- *Molecular biology techniques and paternity analyses*
- 2009: Graduate Internship with Dr. William G. Eberhard at Smithsonian Tropical Research Institute (Panama)
- *Behavioral fieldwork about male-female interactions in a sex-role reversed arachnid*
- 2008 – 2012: PhD. with Dr. Glauco Machado in LAGE research group at Universidade de São Paulo (Brazil)
- *Population ecology approach to estimate survival costs of care to males in a pair of arachnids*
- *Natural observational and experimental approaches to quantify male reproductive success in an arachnid*
- *Experimental approach to assess the importance of paternal care and courtship on male success*
- *Statistical approach to analyze data implementing generalized linear mixed models (using R)*
- *Multi-hypotheses model selection approach based on likelihood*
- 2006 – 2008: Ms. with Dr. Glauco Machado at Universidade Federal de Uberlândia (Brazil)
- *Experimental approach to quantify offspring survival as a benefit of paternal care in an arachnid*
- 2001 – 2004: Senior thesis with Dr. Glauco Machado at Universidade Estadual de Campinas (Brazil)
- *Behavioral fieldwork about male-female interactions in an arachnid species with exclusive paternal care*

TEACHING EXPERIENCE

A) Course organizer: designed and presented a course for graduate students

- 2016-2017: "Ecology of Atlantic Forest", Universidade de São Paulo (Brazil) (180 hours)
2015: "Behavioral Ecology". Universidade de São Paulo (Brazil) (120 hours)

B) Workshop organizer: designed and presented a short-term course for undergraduate students

- 2015: "Bibliographic Search Engines". Universidade de São Paulo (Brazil) (02 hours)
2015: "Topics in Statistics for Ecologists". Universidade de São Paulo (Brazil) (08 hours)
2008: "Sex War: a Sexual Selection and Parental Care Approach". Universidade Federal de Goiás (Brazil) (12 hours)

C) Instructor in graduate field-courses: mentored, discussed and reviewed projects and essays

- 2015: "Ecology of Amazon Forest", Instituto Nacional de Pesquisas da Amazônia (Brazil) (32 hours)
2009 – 2012, 2015: "Ecology of Atlantic Forest", Universidade de São Paulo (Brazil) (40 hours)

D) Guest lecturer on population ecology, behavioral ecology and philosophy of science

- 2015: Graduate course "Evolutionary Ecology", Universidade de São Paulo (Brazil) (08 hours)
2015: Graduate course "Population Ecology", Universidade de São Paulo (Brazil) (02 hours)
2013: Undergraduate course: "Animal Behavior", Yale University (USA) (01 hour)
2009: Undergraduate course: "School of International Training", Barro Colorado Island (Panama) (03 hours)
2008 – 2009: Undergraduate course: "Plant Ecology", Universidade de São Paulo (Brazil) (04 hours)

E) Teaching Assistant: prepared and assisted lab activities, applied and graded exams

- 2008: Graduate field-course: "*Ecology of Atlantic Forest*", Universidade de São Paulo (Brazil)
2006: Undergraduate course: "*Invertebrate Zoology II*", Universidade Federal de Uberlândia (Brazil)
2002: Undergraduate course: "*Botany II*", Universidade Estadual de Campinas (Brazil)
2002: Undergraduate course: "*Botany I*", Universidade Estadual de Campinas (Brazil)

GRANTS & FELLOWSHIPS

- 2017 – 2018: Workshop Organization Grant by Gothenburg Centre for Advanced Studies in Science & Technology (\$50,000 kr) and the Royal Swedish Academy of Sciences KVA (\$10,000 kr)
Jun/15 – May/18: Postdoctoral Fellowship by FAPESP (R\$ 285,595.47)
Sep/15 – Aug/17: Research Grant by Fundação Amparo à Pesquisa do Estado de São Paulo (FAPESP – R\$ 195,352.83)
Summer/14: Early-Career Fellowship by Mountain Lake Biological Station (US\$ 2,400)
Nov/12 – Oct/14: Post-Doctoral Fellowship by Conselho Nacional de Desenvolvimento Científico e Tecnológico (CAPES) and Yale administered funding (US\$ 77,000)
Dec/11 – Apr/12: Graduate Grant by Canadian Bureau for International Education (\$ 10,000 CAN)
Aug/09 – Nov/09: Graduate Grant by Smithsonian Tropical Research Institute (US\$ 3,500)
Sep/08 – Aug/11: Research Grant by FAPESP (R\$ 77,456.58)
Mar/08 – Jun/12: PhD Fellowship by FAPESP (R\$ 126,058.83)
Mar/06 – Feb/08: Ms Fellowship by CAPES (R\$ 27,000)
Sep/05 – Feb/06: Research Grant by FAPESP (R\$ 4,900)
Sep/03 – Jul/05: Undergraduate Thesis Fellowship by FAPESP (R\$ 7,920)

AWARDS

- 2013: Nominated for "*Premio CAPES*" of best national doctoral thesis
2012: Best PhD dissertation of the Department of Ecology at the Universidade de São Paulo (Brazil)
2011: ABS Diversity Award, Animal Behavior Society
2011: Emerging Nations Award, Animal Behavior Society and the International Ethological Conference
2005: Best Oral Communication (Undergraduate) in the V South American Arachnology Meeting, Uruguay
2003: Best Oral Communication (Undergraduate) in the IV South American Arachnology Meeting, Brazil

PROFESSIONAL EXPERIENCE

A) Mentorship

- 2016 – present: PhD's co-advisor of Renato C Macedo-Rego (advisor: Dr. Eduardo SA Santos), Universidade de São Paulo (Brazil)
2016 – 2017: Undergraduate thesis' advisor of Vinicius Montagner, Universidade de São Paulo (Brazil)
2015 – 2016: Master's advisor of Sergio Nolzco, Universidade de São Paulo (Brazil)
2014 – 2015: Co-advisor of Louise M Alissa (advisor: Dr. Glaucio Machado) in her undergraduate thesis, Universidade de São Paulo (Brazil)

B) Leader of Graduate Studies Group

- 2016 – 2017: Mathematical modeling for ecologists and evolutionary biologists (with focus on sexual selection studies), Universidade de São Paulo (Brazil)
2016: Special topics in parental investment and sexual selection theory, Universidade de São Paulo (Brazil)

C) Scientific Committees

- 2014 – present: PhD thesis committee of Rosannette Quesada (advisor: Dr. Glaucio Machado), Universidade de São Paulo (Brazil)
2013 – 2014: Master's dissertation committee of Renato C Macedo-Rego (advisor: Dr. Glaucio Machado), Universidade de São Paulo (Brazil)

D) Committee Member of Thesis/Dissertation Evaluation

- 2017: Master dissertation of Vinícius L Biffi (advisor: Prof. Renata Pardini), Universidade de São Paulo (Brazil)
- 2017: Master dissertation of Irina B Barros (advisor: Prof. Paulo R Guimarães Jr), Universidade de São Paulo (Brazil)
- 2017: Master dissertation of Vanessa BB Silva (advisor: Prof. Paulo EC Peixoto), Universidade Estadual de Feira de Santana (Brazil)
- 2016: Master dissertation proposal of Vivian HT Sousa (advisor: Prof. Paulo EC Peixoto), Universidade Estadual de Feira de Santana (Brazil)
- 2016: Master dissertation of Gabriela L Marin (advisor: Prof. Renata Pardini), Universidade de São Paulo (Brazil)
- 2016: PhD Qualifying Examination of Bruno C Genevicius (advisor: Prof. Cristiano F Schwertner), Universidade de São Paulo (Brazil)
- 2015: PhD thesis of Danilo G Muniz (advisor: Prof. Glauco Machado), Universidade de São Paulo (Brazil)

E) Ad-hoc Referee

Behavioral Ecology, Biological Journal of the Linnean Society, BMC Evolutionary Biology, Ecological Entomology, Ecology Letters, Ethology, Heredity, Journal of Arachnology, Peerage of Science, Physiological Entomology, Proceedings of the Royal Society – Series B, Scientific Reports, Zoologia

Publons profile: <https://publons.com/author/444206/gustavo-requena#profile>

ADMINISTRATIVE EXPERIENCE

- 2016 – 2018: Co-organizer of the workshop “*Interplay between parental care and sexual selection*”, with Dr. Charlotta Kvarnemo (University of Gothenburg), held in Sweden on February 2018 (details in: <https://parentalcaresexualselection.wordpress.com> and <https://www.researchgate.net/project/Workshop-Interplay-Between-Parental-Care-And-Sexual-Selection>)
- 2017: Panelist for the award “*Young Arachnologist*” in the 5th Latin-American Congress (Brazil)
- 2016: Panelist for the 24th Simposium of Undergraduate Scientific and Technological Thesis of the Universidade de São Paulo, for Universidade de São Paulo (Brazil)
- 2014: Panelist for the Small Grant Program's annual competition, for the Yale Institute for Biospheric Studies
- 2009 – 2011: Organization committee for the weekly departmental seminar “*EcoEncontros*”, at the Department of Ecology, Universidade de São Paulo (Brazil)

OUTREACH

- 2018 - 2019: Volunteer with the New Haven Science Fair Mentor Program as a science mentor for first grade students and teachers at Conte West Magnet School, New Haven, CT (USA)
- 2018: Participation in “*Bats & Bugs in the Meadows*”, a public show & tell event where researchers engage the audience in the nocturnal lives of arachnids, insects and bats, hosted at the Quinnipiac Meadows: Eugene B. Fargeorge Preserve and organized by the non-profit ‘New Haven Land Trust’ (USA)
- 2018: Public presentation and discussion of the upcoming documentary “*Wild Animal Dads*” (produced by Rotating Planet Productions), a special event for Father’s Day, in collaboration with the non-profit ‘New Haven Land Trust’ and the start-up company ‘Fixing Fathers’ (USA)
- 2018: Public talk “*What can we learn from weird creature’s behaviours?*”, as part of the pre-events of the workshop “*Interplay between parental care and sexual selection*” (Sweden)
- 2017: Volunteer as a Natural Sciences Career Advisor, discussing the paths for an academic career in natural sciences with sophomore students at Lyman Hall High School, Wallingford, CT (USA)
- 2015 – 2018: Scientific consultant for the documentary “*Wild Animal Dads*”, produced by the Rotating Planet Productions (Canada)
- 2014: Volunteer with the New Haven Science Fair Mentor Program as a scientific judge for the 20th Annual New Haven Public Schools Science Fair, greater New Haven area, CT (USA)

CONTRIBUTED PRESENTATIONS

- 2018: *"The evolution of female choice in species with male-only care"*, presented by my colleague Dr. Danilo G Muniz – 55th Annual Conference of the Animal Behavior Society (USA)
- 2018: *"Does a male take good care of the offspring because he is the father? Or is he the father because he takes good care of the offspring?"*, as plenary speaker – workshop "Interplay between parental care and sexual selection" (Sweden)
- 2017: *"Interrelationship between paternal care and sexual selection: from harvestmen to virtual animals"*, as plenary speaker – 5th Latin-American Arachnology Congress (Brazil)
- 2017: *"Ante buenos padres, madres desentendidas: eficiencia del cuidado paternal en el opilión Neotropical Quindina limbata (Laniatores: Nomoclastidae)"*, presented by my co-advised graduate student Rosannette Quesada-Hidalgo – 5th Latin-American Arachnology Congress (Brazil)
- 2017: *"Sexual selection and parental care"* in the round table *"Does everything end in sex? Understanding behavioral evolution through sexual selection"* – 13th Congresso de Ecologia do Brasil & 3rd International Symposium of Ecology and Evolution (Brazil)
- 2017: *"Sexual selection and parental care"* in a mini-symposium about sexual selection for undergraduate students – 20th Semana Temática da Biologia (Brazil)
- 2017: *"Sperm competition games when males invest in paternal care"* – 54th Annual Conference of the Animal Behavior Society (Canada)
- 2017: *"Females prefer nest quality over male quality in a harvestman with paternal care"*, presented by my undergraduate student Vinicius Montagner – 54th Annual Conference of the Animal Behavior Society (Canada)
- 2017: *"Fit daddies: body condition increases male attractiveness in an arachnid with exclusive male care"*, presented by my co-advised undergraduate student Louise M. Alissa – 54th Annual Conference of the Animal Behavior Society (Canada)
- 2017: *"Paternal care and the possible role of females in offspring protection in Quindina limbata (OPILIONES)"*, presented by my co-advised graduate student Rosannette Quesada-Hidalgo – 54th Annual Conference of the Animal Behavior Society (Canada)
- 2017: *"Nest characteristics, but not body condition, determine parental males' success in a harvestman"* –workshop Evolution of Sex Roles (Hungary)
- 2017: *"Male parental care and sexual selection: from empirical to virtual data"* – EEES Lunch seminar series of the Ecology, Evolution, Ecosystems, and Society Graduate Program at Dartmouth College (USA)
- 2016: *"Body condition affects parental males' mating success in harvestmen"* – 16th Conference of the International Society of the Behavioral Ecology (England)
- 2016: *"Efficiency of paternal care on egg protection in the harvestman Poassa limbata (Opiliones): do females help caring too?"*, presented by my co-advised graduate student Rosannette Quesada-Hidalgo – 20th International Congress of Arachnology (USA)
- 2015: *"Does he take care because is the father? Or is he the father because takes care? Co-evolution between paternal effort and traits that bias paternity"* – Ecology departmental seminar "EcoEncontros", Universidade de São Paulo (Brazil)
- 2015: *"Sperm competition games when males invest in paternal care"* – 13th Biology of Spermatozoa (England)
- 2014: *"How should male allocation strategies respond to sperm competition when males invest in paternal care?"* – 15th Conference of the International Society for Behavioral Ecology (USA)
- 2013: *"Relating male parental effort and paternity"* – EEB's Annual Retreat, Yale University (USA)
- 2013: *"Should males invest more because they are fathers? Or are they fathers because they have invested more? The effect of male allocation in parental and reproductive efforts on paternity"* – XIV Conference of the European Society for Evolutionary Biology, Lisbon (Portugal)
- 2013: *"The big, the Don Juan, and the father: 3 steps towards the success among harvestmen ladies"* – ENTO'13, St. Andrews (Scotland)
- 2013: *"The big, the Don Juan, and the father: 3 steps towards the success among harvestmen ladies"* – 50th Annual Conference of the Animal Behavior Society, Boulder (USA)

- 2013: "Paternal investment, sex roles and sexual selection" – EEB seminar series, University of Nebraska-Lincoln (USA)
- 2011: "Availability of preferred mates changes female choosiness in a harvestman with paternal care" – Behaviour 2011, Bloomington (USA)
- 2010: "Sexual selection in humans: What can we learn from Biology?" – 20th Veterinary Institute Academic Week, Universidade de São Paulo (Brazil)
- 2009: "Should I stay or should I go? Paternal care trade-offs in a Neotropical harvestman" – B.A.M.B.I. seminar series, Smithsonian Tropical Research Institute (Panama)
- 2008: "Is to be a father suffer in the heaven? Advantages and disadvantages of paternal care" – 19th Biological Sciences Institute Week, Universidade Federal de Goiás (Brazil)
- 2006: "Costs and benefits of the paternal care in the harvestman *Iporangaia pustulosa* (Opiliones: Gonyleptidae)" – Instituto de Ecología seminar series (Mexico)
- 2005: "Paternal care in the harvestman *Iporangaia pustulosa* (Opiliones): good daddies or selfish lovers?" – V South American Arachnology Meeting (Uruguay)
- 2003: "Paternal care and sexual selection in the harvestman *Iporangaia pustulosa* (Opiliones)" – IV South American Arachnology Meeting (Brazil)

PUBLICATIONS (MY 5 MOST IMPORTANT WORKS ARE MARKED WITH '*')

http://www.researchgate.net/profile/Gustavo_Requena

<https://scholar.google.com.br/citations?user=XMkt0ycAAAJ&hl=en>

A) Papers Accepted for Publication

1. Quesada-Hidalgo R, Solano D, **Requena GS** & Machado G. (Accepted) The good fathers: Efficiency of male care and the protective role of foster parents in a Neotropical arachnid. *Anim Behav*
2. Nolasco SP & **Requena GS**. 2018. Flexible compensation of uniparental care in an arachnid species: things are not always what they seem. *Anim Behav* 143:67-81.
- * 3. **Requena GS** & Alonzo SH. 2017. Sperm competition games when males invest in paternal care. *Proceedings of the Royal Society – Series B* 284:20171266 (published online first in 16 August 2017)
4. Consolmagno RC, **Requena GS**, Machado G & Brasileiro CA. 2016. Costs and benefits of temporary egg desertion in a rocky shore frog with male-only care. *Behavioral Ecology and Sociobiology* 70:785-795.
- * 5. **Requena GS** & Machado G. 2015. Effects of egg attendance on male mating success in a harvestman with exclusive paternal care. *Behavioral Ecology* 26:926-935.
6. **Requena GS** & Machado G. 2015. Lack of costs associated with nest-related behaviors in an arachnid with exclusive paternal care. *Oikos* 124:372-380
- * 7. **Requena GS** & Alonzo SH. 2014. Female sperm use and storage between fertilization events drives sperm competition and male ejaculate allocation. *Evolution* 68:3433-3444
8. **Requena GS** & Machado G. 2014. Mating behavior of a Neotropical arachnid with exclusive paternal care. *Acta Ethol*, 17: 23-30.
- * 9. **Requena GS**; Buzatto BA; Martins EG & Machado G. 2012. Paternal care decreases foraging activity and body condition but does not impose survival costs to caring males in a Neotropical arachnid. *Plos One*. 7:e46701
10. Buzatto BA; **Requena GS**; Lourenço RS; Munguía-Steyer R & Machado G. 2011. Conditional male dimorphism and alternative reproductive tactics in a Neotropical arachnid (Opiliones). *Evol Ecol*, 25: 331-349
11. **Requena GS**; Nazareth TM; Schwertner CF & Machado G. 2010. First cases of exclusive paternal care in stink bugs (Hemiptera: Pentatomidae). *Zoologia*, 27: 1018-1021
12. **Requena GS**; Buzatto BA; Munguía-Steyer R & Machado G. 2009. Efficiency of uniparental male and female care against egg predators in two closely related syntopic harvestmen. *Anim Behav*, 78: 1169-1176
13. Buzatto BA; **Requena GS** & Machado G. 2009. Chemical communication in the gregarious psocid *Cerastipsocus sivorii* (Psocoptera: Psocidae). *J Ins Behav*, 22: 388-398
14. Machado G; **Requena GS** & Buzatto BA. 2009. Comportamento reprodutivo de opiliões (ARACHNIDA): Sistemas de acasalamento e cuidado parental. *Oecol Brasil*, 13: 58-79

15. Buzatto BA; **Requena GS**; Martins EG & Machado G. 2007. Effects of maternal care on the lifetime reproductive success of females in a neotropical harvestman. *J Anim Ecol*, 76: 937-945
16. **Requena GS**; Buzatto BA & Machado G. 2007. Habitat use, phenology, and gregariousness of the Neotropical psocopteran *Cerastipsocus sivorii* (Psocoptera: Psocidae). *Sociobiol*, 49: 197-214
17. Machado G; **Requena GS**; Buzatto BA; Osses F & Rossetto LM. 2004. Five new cases of paternal care in harvestmen (Arachnida: Opiliones): implications for the evolution of male guarding in the Neotropical family Gonyleptidae. *Sociobiol*, 44: 577-598

B) Book Chapters

18. Machado G; **Requena GS**; Toscano-Gadea CA; Stanley S & Macías-Ordoñez R. 2015. Male and female mate choice in harvestmen: general patterns and inferences on the underlying processes. In: "CRYPTIC FEMALE CHOICE IN ARTHROPODS Patterns, Mechanisms and Prospects" (Peretti AV & Aisenberg A, eds.), pp 169-201. Springer International Publishing
- * 19. **Requena GS**; Munguía-Steyer R & Machado G. 2014. Paternal care and sexual selection in arthropods. In: *Sexual selection: Insights from the Neotropics* (Macedo RM & Machado G, eds.), pp 201-234. Elsevier

C) Ongoing Work

- Requena GS.** (*in revision*) Last-male sperm precedence favors male allocation to paternal care.
- Quesada-Hidalgo R, Solano D, **Requena GS** & Machado G. Why do parental males of the harvestman *Quindina limbata* reject potential partners? *In preparation*
- Muniz DG, **Requena GS** & Machado G. The evolution of female choice in species with male-only care. *In preparation*
- Alissa LM, Machado G & **Requena GS** &. The role of body condition on males' attractiveness in *Iporangaia pustulosa*, a harvestman with male-only care. *In preparation*
- Montagner V & **Requena GS**. What is the relative importance of nest structure and body condition on males' success in the harvestman *Magnispina neptunus*? *In preparation*
- Requena GS** & Montagner V. Male-male competition for the monopolization of nest sites in the harvestman *Magnispina neptunus*. *In preparation*