

CURRICULUM VITAE
George D. Broufas
Professor of Agricultural Zoology and Entomology

1. Personal Information

Date of birth: 8 June 1971 **Place of birth:** Thessaloniki, Greece

Address (work): Democritus University of Thrace, Department of Agricultural Development, Laboratory of Agricultural Entomology & Zoology, Pantazidou 193, Orestiada 68200, Greece

E-mail: gbroufas@agro.duth.gr; geobroufas@gmail.com / **webpage:** <http://utopia.duth.gr/~gbroufas> / **Tel.:** +302552041154 (work); +306972302170

2. Career

2019 – now: Professor, Department of Agricultural Development (DADev), Democritus University of Thrace (DUTH), Greece

2013 – 2019: Associate Professor, Department of Agricultural Development (DADev), Democritus University of Thrace (DUTH), Greece

2012 – now: Adjunct Professor, Mediterranean Agronomic Institute of Chania (MAICh)

2012 – 2013: Visiting Researcher, Institute for Biodiversity and Ecosystem Dynamics (IBED), University of Amsterdam (UvA), The Netherlands

2009 – 2013: Assistant Professor, Democritus University of Thrace, Greece

2003 – 2009: Lecturer, Democritus University of Thrace, Greece

2002 – 2003: Teaching Assistant, Technological Educational Institute of Larissa, Greece

2002 – 2003: Adjunct Lecturer, Democritus University of Thrace

2001 – 2002: Postdoctoral researcher, Aristotle University of Thessaloniki (AUTH), Greece

1999 – 2001: Military service

1997 – 2001: PhD student, Aristotle University of Thessaloniki, Greece.

1994 – 1997: Research associate, Aristotle University of Thessaloniki, Greece.

3. Studies

1997 - 2001: PhD in Agricultural Zoology. School of Agriculture, Aristotle University of Thessaloniki, Greece

1994 - 1996: MSc in Crop Protection (9.85/10.0). School of Agriculture, Aristotle University of Thessaloniki, Greece

1989 - 1994: Bachelor in Agricultural Sciences (9.12/10.0). School of Agriculture, Aristotle University of Thessaloniki, Greece

4. Research Interests

Biological control of insects and mite pests, Integrated pest management, Side-effects of pesticides to non-target organisms (arthropods), Day-degree phenological models, Diapause, Insect-plant interactions

5. Funded projects (last 5 years)

2019-2022: PRIMA: Innovative tools to combat crop pests in the Mediterranean (INTOMED). (Position: Partner, funded by GSRT)

2018-2021: EYDE-ETAK: Evaluation and breeding of lentil landraces and cultivars for special agronomic, physiological and quality traits (LENSBREED) (Position: Partner; funded by GSRT)

2018-2021: KA203-048110-Erasmus Curricula in Applied Plant Sciences (ESCAPAdE). (Position: Partner; funded by EU Erasmus +)

2018-2020: Assessing the potential of the lacewings *Chrysoperla agilis* and *C. mutata* as biological control agents of aphids and mealybugs. (Position: Partner; funded by Biobest Belgium NV)

2017 - 2018: Population dynamics of insect pests in tobacco fields (cv. Basma) in the area of Komotini (Position: PI; funded by Missirian SA)

2016 - 2017: Monitoring and qualitative assessment of mosquito trap in Evros (Position: PI; funded by Benaki Phytopathological Institute)

2016 - 2017: Economic injury levels of *Helicoverpa armigera* in tobacco (Position: PI; funded by Missirian SA)

2016 - 2017: Integrated pest management in tobacco at the municipality of Komotini (Position: PI; funded by Missirian SA)

2016 - 2017: Biological pest control with *Macrolophus pygmaeus* populations as influenced by plant – mediated effects’ (Position: Partner; funded by Biobest Belgium NV)

6. Scientific society memberships

Panhellenic Entomological Society (HES); European Association of Acarologists (EURAAC); International Association of Neuropterologists (IAN); International Organization for Biological and Integrated Control (IOBC)

7. Experience in reviewing

Scientific manuscripts evaluation

Biological Control, BioControl, Bulletin of Entomological Research, Experimental and Applied Acarology, Insects, Hellenic Plant Protection Journal, MAYDICA, PlosONE, Physiological Entomology, Acarologia, Pest Management Science, Phytoparasitica, Hellenic Plant Protection Journal, Frontiers Plant Science, Journal of Economic Entomology, Arthropod-Plant Interactions, Archives of Phytopathology and Plant Protection.

Editorial Board memberships

- Guest Associate Editor for Frontiers in Plant Science, Frontiers in Ecology and Evolution and Frontiers in Environmental Science Research Topic: ‘[Ecosystem Services and Disservices Provided by Plant-Feeding Predatory Arthropods](#)’
- Guest Associate Editor for *Sustainability*, Research Topic: ‘[Sustainable Use of Biocontrol Agents](#)’

8. (Inter)national scientific activities (last 5 years)

2020: Co-Editor of the Proceedings of the 7th Working Group Meeting (Working Group "Integrated Control of Plant-Feeding Mites") at BOKU, Vienna, Austria, 16-19 September, 2019.

2018: Co-Editor of the Proceedings of the 6th Working Group Meeting (Working Group "Integrated Control of Plant-Feeding Mites") at Chania, Greece, 2017, 04-07 September 2015.

2017 – now : Convenor of the IOBC WG - “[Integrated Control of Plant-Feeding Mites](#)”

2017 – now: Advisory board member of the the Regional Scientific Council of Research and Innovation, East Macedonia and Thrace, Greece.

2017: Chair and member of the Organizing and the Scientific Committees of the 6th meeting of the IOBC-WPRS Working Group "[Integrated Control of Plant-Feeding Mites](#)", Chania, 4-7/9, 2017

2017: Member of the Scientific Committee of the 17th National Entomological Congress, Athens, 19-22 September 2017

2016: Chair and member of the Organizing Committee and the Scientific Committees of the meeting of the IOBC-WPRS Working Group "[Pesticides and Beneficial Organisms](#)” Chania, Crete 11-13 October, 2016.

9. Publications

In international peer-reviewed journals | Total citations: **787** | h-index: **17**

1. Ortego, F., Broekgaarden, C., Suzuki, T., **Broufas, G.D.**, Smagghe, G., Diaz, I. 2021. Editorial: Plant-Pest Interactions Volume II: Hemiptera. *Frontiers in Plant Science* 12, 748999.
2. Pappas, M.L., Samaras, K., Koufakis, I., **Broufas, G.D.** 2021. Beneficial soil microbes negatively affect spider mites and aphids in pepper. *Agronomy* 11(9),1831.
3. Suzuki, T., Broufas, G., Smagghe, G., Ortego, Broekgaarden, C., Diaz, I. 2021 Editorial: Plant-Pest Interactions Volume III: Coleoptera and Lepidoptera. *Frontiers in Plant Science* 12,730290
4. Athanasiadis K., ML Pappas, **Broufas G.D.** 2021. Effect of Duration of Exposure to Males on Female Reproductive Performance of the Green Lacewing, *Chrysoperla agilis* (Neuroptera: Chrysopidae). *Insects* 12 (6), 560
5. Samaras K., ML Pappas, A Pekas, F Wäckers, **Broufas G.D.** 2021. Benefits of a balanced diet? Mixing prey with pollen is advantageous for the phytoseiid predator *Amblydromalus limonicus*. *Biological Control* 155, 104531
6. Papanikolaou N.E., **Broufas G.D.**, Papachristos D.P., Pappas M.L., Kyriakaki Ch., Samaras K., Kypraios Th. 2020. On the mechanistic understanding of predator feeding behavior using the functional response concept *Ecosphere* 11(5): e03147 <https://doi.org/10.1002/ecs2.3147>

7. Samaras K., Pappas M.L., Fytas E., **Broufas G.D.** 2019. Pollen provisioning enhances the performance of *Amblydromalus limonicus* on an unsuitable prey. *Frontiers in Ecology and Evolution* 7, 122
8. Pappas, M., Liapoura M., Papantoniou D., Avramidou M., Kavroulakis N., Weinhold A., **Broufas G.** and K. Papadopoulou 2018. The Beneficial Endophytic Fungus *Fusarium solani* Strain K Alters Tomato Responses Against Spider Mites to the Benefit of the Plant. [Frontiers in Plant Science](#). 9. doi:10.3389/fpls.2018.01603.
9. Garantonakis N., Pappas M.L., Varikou K., Skiada V., **Broufas G.D.**, Kavroulakis N. and K. Papadopoulou 2018. Tomato inoculation with the endophytic strain *Fusarium solani* K results in reduced feeding damage by the zoophytophagous predator *Nesidiocoris tenuis*. [Frontiers in Ecology and Evolution](#) 6: 126. doi:10.3389/fevo.2018.00126
10. Kopačka M. Stathakis Th.I., **Broufas G.**, Papadoulis G.Th. and R. Zemek 2018. Diversity and abundance of Phytoseiidae (Acari: Mesostigmata) on horse chestnut (*Aesculus hippocastanum* L.) in an urban environment: a comparison between Greece and the Czech Republic. [Acarologia](#) 58: 83-90; doi:10.24349/acarologia/20184284.
11. Pappas, M.L., Tavlaki, G., Triantafyllou, A., **Broufas, G.D.** (2018). Omnivore-herbivore interactions: thrips and whiteflies compete via the shared host plant. [Scientific Reports](#) 8: 3996 (2018), doi:10.1038/s41598-018-22353-2..
12. Pappas M.L., Broekgaarden C., **Broufas G.D.**, Kant M.R., Messelink G., Steppuhn A., Wäckers F. and N.M. van Dam 2017. The double-edged sword of induced plant defences in biological control. [Pest Management Science](#), doi: 10.1002/ps.4587
13. Pappas M.L., Steppuhn A., and **G.D. Broufas** 2016. The role of phytophagy by predators in shaping plant interactions with their pests. [Communicative and Integrative Biology](#), 9(2): e1145320 (invited)
14. Pappas M.L., Steppuhn A., Geuss D., Topalidou N., Zografou A., Sabelis M.W. and G.D. Broufas 2015. Beyond predation: the zoophytophagous predator *Macrolophus pygmaeus* induces tomato resistance against spider mites, [PLoS ONE](#) 10 (5): e0127251
15. Samaras K., Pappas M.L., Fytas E. and **GD. Broufas** 2015. Pollen suitability for the development and reproduction of *Amblydromalus limonicus* (Acari: Phytoseiidae), [BioControl](#) 60(6): 773-782
16. van Maanen R., **Broufas G.**, P. de Jong, Aguilar-Fenellosa E., A. Revynthy, Sabelis M. W. and A. Janssen 2015. Predators marked with chemical cues from one prey have increased attack success on another prey species. [Ecological Entomology](#) 40:60-68.
17. Döker I., Pappas M.L., Samaras K., Triantafyllou A., Kazak C. and **Broufas G.** 2014. Compatibility of reduced-risk insecticides with the non-target predatory mite *Iphiseius degenerans* (Acari: Phytoseiidae). [Pest Management Science](#), doi: 10.1002/ps.3921
18. Pappas M. L., Migkou F. and **G.D. Broufas** 2013. Incidence of resistance to neonicotinoid insecticides in greenhouse populations of the whitefly, *Trialeurodes vaporariorum* (Hemiptera: Aleyrodidae) from Greece. [Applied Entomology and Zoology](#) 48: 373-378
19. Pappas M.L., Karagiorgou E., Papaioannou G., Koveos D.S. and **G.D. Broufas** 2013. Developmental temperature responses of *Chrysoperla agilis* (Neuroptera: Chrysopidae), a member of the European carnea cryptic species group. [Biological Control](#) 64(3):291-298.
20. Pappas M.L., Xanthis C., Samaras K., Koveos D.S. and **G.D. Broufas** 2013. Potential of the predatory mite *Phytoseius finitimus* (Acari: Phytoseiidae) to feed and reproduce on greenhouse pests. [Experimental and Applied Acarology](#) 61(4): 387-401.
21. van Maanen R., **Broufas G.**, Oveja M.F., Sabelis M.W. and A. Janssen, 2011. Intraguild predation among herbivorous insects: western flower thrips larvae feed on whitefly crawlers. [BioControl](#) 57 (4): 533-539.
22. Pappas ML, **Broufas G.D.**, Tsarsitalidou O.K. And D.S. Koveos, 2011. Development and reproduction of the lacewings *Dichochrysa flavifrons* and *Dichochrysa zelleri* (Neuroptera: Chrysopidae) fed on two prey species. [Annals of the Entomological Society of America](#) 104(4): 726-732.
23. Pappas, M.L., **Broufas, G.D.** and D.S. Koveos, 2011. Chrysopid predators and their role in biological control. [Journal of Entomology](#) 8(3): 301-326.
24. Pappas M.L., **G.D. Broufas**, N. Koufali, P. Pieri and D.S. Koveos, 2011. Effect of heat stress on survival and reproduction of the olive fruit fly *Bactocera (Dacus) oleae*. [Journal of Applied Entomology](#) 135(5): 359-366.
25. **Broufas G.D.**, M.L. Pappas and D.S. Koveos 2009. Effect of relative humidity on reproduction, longevity and ovarian maturation of the tephritid fly *Bactocera (Dacus) oleae*. [Annals of the Entomological Society of America](#) 102(1): 70-75.

26. Pappas M.L., **G.D. Broufas** and D.S. Koveos, 2009. Effect of prey availability on development and reproduction of the predatory lacewing *Dichochrysa prasina* (Neuroptera: Chrysopidae). [Annals of the Entomological Society of America 102\(3\): 437-444.](#)
27. Pappas M.L., **G.D. Broufas** and D.S. Koveos, 2008. Effect of relative humidity on development, survival and reproduction of the predatory lacewing *Dichochrysa prasina* (Neuroptera: Chrysopidae). [Biological Control 46: 234-241.](#)
28. Pappas M.L., **G.D. Broufas** and D.S. Koveos, 2008. Effect of temperature on survival, development and reproduction of the predatory lacewing *Dichochrysa prasina* (Neuroptera: Chrysopidae) reared on *Ephestia kuehniella* eggs (Lepidoptera: Pyralidae). [Biological Control 45: 396-403.](#)
29. Pappas M.L., **G.D. Broufas** and D.S. Koveos, 2008. The two spotted spider mite, *Tetranychus urticae* (Acari: Tetranychidae), alternative prey for the lacewing *Dichochrysa prasina* (Neuroptera: Chrysopidae). [European Journal of Entomology 105: 461-466.](#)
30. **Broufas G.D.**, M.L. Pappas, G. Vassiliou and D.S. Koveos, 2008. Toxicity of certain pesticides to the predatory mite *Euseius finlandicus* (Acari: Phytoseiidae). [IOBC wprs Bulletin Vol. 35: 85-91.](#)
31. Pappas, M.L., **Broufas, G.D.** and D.S. Koveos, 2007. Effect of mating frequency on fecundity and longevity of the predatory mite *Kampimodromus aberrans* (Acari: Phytoseiidae). [Experimental & Applied Acarology 43\(3\): 161-170.](#)
32. Pappas, M.L., **Broufas, G.D.** and D.S. Koveos, 2007. Effects of various prey species on development, survival and reproduction of the predatory lacewing *Dichochrysa prasina* (Neuroptera: Chrysopidae). [Biological Control 43: 163-170.](#)
33. **Broufas, G.D.**, M.L. Pappas, and D.S. Koveos, 2007. Development, survival and reproduction of the predatory mite *Kampimodromus aberrans* (Acari: Phytoseiidae) at different constant temperatures. [Environmental Entomology 36\(4\): 657-665.](#)
34. **Broufas, G.D.**, M.L., Pappas and D.S. Koveos, 2006. Effect of cold exposure and photoperiod on diapause termination of the predatory mite *Euseius finlandicus* (Acari: Phytoseiidae). [Environmental Entomology 35 \(5\): 1216-1221.](#)
35. Pappas, M.L., **Broufas, G.D.** and D.S. Koveos, 2005. Mating behavior of the predatory mite *Kampimodromus aberrans* (Acari: Phytoseiidae). [Experimental & Applied Acarology 36: 187-197.](#)
36. **Broufas, G.D.**, 2002. Diapause induction and termination of the predatory mite *Euseius finlandicus* in peach orchards in northern Greece. [Experimental & Applied Acarology 25: 921-932.](#)
37. **Broufas, G.D.**, D.S. Koveos and D.I. Georgatzis, 2002. Overwintering sites and winter mortality of *Euseius finlandicus* (Acari: Phytoseiidae) in a peach orchard in northern Greece. [Experimental & Applied Acarology 26: 1-21](#)
38. Koveos D.S., B.I. Katsoyannos and **G.D. Broufas**, 2002. First record of *Eurytoma schreineri* Schreiner (Hymenoptera: Eurytomidae) in Greece and some observations on its phenology. [Journal of Applied Entomology 126: 186-187.](#)
39. **Broufas G.D.** and D.S. Koveos, 2001. Cold hardiness in a strain of the predatory mite *Euseius (Amblyseius) finlandicus* (Acari: Phytoseiidae) from northern Greece. [Annals of Entomological Society of America 94: 82-90.](#)
40. Koveos, D.S., and **G.D. Broufas**, 2001. Survival under dry conditions of males and diapause and non-diapause females of the predatory mite *Euseius finlandicus* (Acari: Phytoseiidae). *Acta Societatis Zoologicae Bohemicae* 65: 247-251.
41. **Broufas G.D.** and D.S. Koveos, 2001. Rapid cold hardening in *Euseius (Amblyseius) finlandicus* (Acari: Phytoseiidae). [Journal of Insect Physiology 47:699-708.](#)
42. **Broufas, G.D.** and D.S. Koveos, 2001. Development, survivorship and reproduction of *Euseius finlandicus* (Acari: Phytoseiidae) at different constant temperatures. [Experimental & Applied Acarology 25: 441-460.](#)
43. Koveos D.S. and **G.D. Broufas**, 2000. Functional response of *Euseius (Amblyseius) finlandicus* and *Amblyseius andersoni* on *Panonychus ulmi* on apple and peach leaves in the laboratory. [Experimental & Applied Acarology 24: 247-256.](#)
44. **Broufas G.D.** and D.S. Koveos, 2000. Threshold temperature for post-diapause development and degree-days to hatching of winter eggs of the red spider mite *Panonychus ulmi* (Acari: Tetranychidae) in northern Greece. [Environmental Entomology 29: 710-713.](#)
45. **Broufas G.D.** and D.S. Koveos, 2000. Effect of different pollens on development, survivorship and reproduction of *Euseius finlandicus* (Acari: Phytoseiidae). [Environmental Entomology 29: 743-749](#)
46. Koveos D.S. and **G.D. Broufas**, 1999. Diapause induction and termination in eggs of the fruit tree red spider mite *Panonychus ulmi* in northern Greece. [Experimental & Applied Acarology 23: 669-679.](#)

47. Koveos D.S. and **G.D. Broufas**, 1999. Feeding history affects the response of the predatory mite *Typhlodromus kerkirae* (Acari: Phytoseiidae) to volatiles of plants infested with spider mites. [Experimental & Applied Acarology 23: 429-436.](#)
48. Koveos D.S., A. Veerman, **G.D. Broufas** and A. Exarhou, 1999. Altitudinal and latitudinal variation in diapause characteristics in the spider mite *Tetranychus urticae* Koch. [Entomol Science 2: 607-613.](#)
49. Koveos D.S., **G.D. Broufas**, E. Kiliaraki and M.E. Tzanakakis, 1996. Effect of prevention of flight on ovarian maturation and reproductive diapause in the olive fruit fly *Bactrocera (Dacus) olea* (Diptera: Tephritidae). [Annals of the Entomological Society of America 90: 337-340.](#)
50. Koveos D.S., N.A. Kouloussis and **G.D. Broufas**, 1995. Olfactory response of the predatory mite *Amblyseius andersoni* Chant to bean plants infested by the spider mite *Tetranychus urticae* Koch. [Journal of Applied Entomology 119: 615- 619.](#)

Book chapters

1. Pappas M.L., G.D. Broufas, A. Pozzebon, C. Duso, F. Wackers 2019. Ecosystem Services and Disservices Provided by Plant-Feeding Predatory Arthropods. Editorial on the Research Topic [Ecosystem Services and Disservices Provided by Plant-Feeding Predatory Arthropods](#). Ebook. Front. Ecol. Evol., 2019 <https://doi.org/10.3389/fevo.2019.00425>
2. Pappas M.L., P. Baptista, G.D. Broufas, A. Dalakouras, W. Djobbi, V. Flors, M. Msaad Guerfali, S. Khayi, R. Mentag, V. Pastor, J.A. Pereira, P. Sánchez-Bel, K. Papadopoulou 2020. Biological and Molecular Control Tools in Plant Defense. In “[Plant Defence: Biological Control](#)” Eds Jean-Michel Mérillon and Kishan Gopal Ramawat. Springer, Cham. 3-43 pp. DOI <https://doi.org/10.1007/978-3-030-51034-3>
3. Alix A., Lewis G., **Broufas G.**, Coulson M., Delpuech E.J.M., Dinter A., Hollrigl Rosta A., Musriska A., Smaghe G. and G. Weyman, 2012. Level of protection and Testing Scheme. In ESCORT 3 [Linking Non Target Arthropod Testing and Risk Assessment with Protection Goals](#). Editors: Anne Alix, Frank Bakker, Katie Barrett, Carsten A. Brühl, Mike Coulson, Simon Hoy, Jean Pierre Jansen, Paul Jepson, Gavin Lewis, Paul Neumann, Dirk Süßenbach, Peter van Vliet. Society of Environmental Toxicology and Chemistry (SETAC). 136pp.

Contributions to International Conferences: 43 abstracts in 20 international conferences

Contributions to National Conferences: 62 abstracts in 13 national conferences

Other publications: 1 laboratory guide on Entomology, 1 book translation, 3 fact sheets, 16 publications in Greek technical journals