

Peer reviewed journals

- Horrocks, K. J., Romeis, J., & **Collatz, J. 2025**. Environmental impacts of agricultural pest insects: five case studies reveal overlooked impact mechanisms and specify knowledge gaps. *NeoBiota* **104**: 251-279.
- Xu, B., Zhang, G., Zhu, N., Romeis, J., **Collatz, J.**, Zhang, G., ... & Wan, F. **2025**. Functional characterization of four antimicrobial defensins in the globally invasive pest *Tuta (Phthorimaea) absoluta* (Lepidoptera: Gelechiidae). *Biological Control* **212**: 105944.
- Xu, B., Huang, C., Cheng, S., Romeis, J., **Collatz, J.**, Zhang, G.F., Zhang, Y., Zhang, G. & Wan, F. **2025**. Screening of highly virulent *Beauveria bassiana* strains against *Tuta absoluta* larvae and evaluation of their endophytic colonization-mediated suppression in tomato plants. *Plants* **14**: 2932.
- Rossi-Stacconi, M. V., Abram, P. K., Anfora, G., Beers, E., Biondi, A., Borowiec, N., Carillo, J., **Collatz, J.**... & Wang, X. **2025**. Adventively established *Leptopilina japonica*: a new opportunity for augmentative biocontrol of *Drosophila suzukii*. *Journal of Pest Science* **98**: 1863-1879.
- Yan, S. Y., Yang, H. S., Huang, C., Zhang, G. F., Arnó, J., **Collatz, J.**, ... & Zhang, Y. B. **2025**. The Olfactory System of *Dolichogenidea gelechiidivoris* (Marsh)(Hymenoptera: Braconidae), a Natural Enemy of *Tuta absoluta* (Meyrick)(Lepidoptera: Gelechiidae). *International Journal of Molecular Sciences*, **26**: 7312.
- Zannou, A. J., Arnó, J., Romeis, J., & **Collatz, J. 2025**. Compatibility of biocontrol agents with host plant resistance for management of the South American tomato pinworm *Phthorimaea absoluta*. *Biological Control* **205**: 105772.
- Wyckhuys, K.A.G., Abram, P.K., Barrios, E., Cancio, J., **Collatz, J.**, Fancelli, M., Klein, A.-M., Lindell, C.A., Ostermann, J., Pinto, M., Tang, F.H.M., Tena, A. & Elkahky, M. **2025**. Orchard systems offer low-hanging fruit for low-carbon, biodiversity-friendly farming. *BioScience*: biae140.
- Müller, S., **Collatz, J.**, Richter, H., Zboray, R. & Albrecht, M. **2025**. Increased overwintering temperature reduces reproductive success of the solitary bee species *Osmia bicornis*. *Scientific Reports*, **15**: 2965.
- Zannou, A. J., Romeis, J., & **Collatz, J. 2025**. Response of the tomato leaf miner *Phthorimaea absoluta* to wild and domesticated tomato genotypes. *Pest Management Science* **81**: 1345-1359.
- Horrocks, K. J., Seehausen, M. L., Down, R. E., Audsley, N., Maggini, R., & **Collatz, J. 2024**. Assessing the feasibility of pre-emptive biological control against the emerald ash borer, *Agrilus planipennis*, an imminent biosecurity threat to Europe. *Biological Control* **198**: 105641.
- Martínez, L.D., Bueno, V.H.P., Dias, H.L.B., **Collatz, J.**, Rivero, M.D.L.Á.M., Maluf, R.W., Oliveira, A., Dieguez A.R., Castro, A.S. & Morell, H.R. **2024**. Bases científicas y metodológicas para la detección temprana y respuesta rápida a *Tuta absoluta* (Meyrick)(Lepidoptera: Gelechiidae) en Cuba. *Anales de la Academia de Ciencias de Cuba* **14**: 1547.
- Horrocks, K.J., Zhang, J., Haye, T., Seehausen, L., Maggini, R., Xian, X., Chen, J., Nugnes, F., **Collatz, J.**, Gruber, A. & Garipey, T.D. **2024**. Biology, impact, management and potential distribution of *Aromia bungii*, a major threat to fruit crops around the world. *Journal of Pest Science* **97**: 1725-1747.
- Gilliéron, F., Romeis, J. & **Collatz, J. 2024**. Cold tolerance of the mealybug parasitoid *Anagyrus vladimiri*. *Biocontrol* **69**: 129-143.
- Koller, J., Gonthier, J., Norgrove, L., Arnó, J., Sutter, L. & **Collatz, J. 2024**. A parasitoid wasp allied with an entomopathogenic virus to control *Tuta absoluta*. *Crop protection* **179**: 106617.

Gonthier, J., Arnó, J., Romeis, J. & **Collatz, J. 2024.** Insight into the host-specificity of a native and a newly introduced parasitoid of *Tuta absoluta* and prospect for biological control. *Biological Control*: **191**: 105464.

Avila, G., Seehausen, L., Lesieur, V., Chhagan, A., Caron, V., Down, R. E., Audsley, N., **Collatz, J.**, Bukovinszki, T., Sabbatini Peverieri, G., Tanner, R., Maggini, R., Milonas, P., McGee, C. F., Horrocks, K., Herz, A., Lemanski, K., Anfora, G., Batistič, L., Bohinc, T., Borowiec, N., Dinu, M., Fatu, A.-C., Ferracini, C., Giakoumaki, M.-V., Ioriatti, C., Kenis, M., Laznik, Z., Malumphy, C., Rossi Stacconi, M. V., Roversi, P. F.; Trdan, S., Barratt, B. I. P. **2023.** Guidelines and framework to assess the feasibility of starting pre-emptive risk assessment of classical biological control agents. *Biological Control* **187**: 105387.

Koller, J., Sutter, L., Gonthier, J., **Collatz, J.** & Norgrove, L. **2023.** Entomopathogens and parasitoids allied in biocontrol: a systematic review. *Pathogens* **12**: 957.

Gonthier, J., Koller, J., Arnó, J., **Collatz, J.**, & Sutter, L. **2023.** Models for the practitioner: Predicting the efficient biocontrol of *Tuta absoluta* under different management scenarios. *Crop Protection*: **106316**.

Martinez, L.D., Romeis, J., & **Collatz, J. 2023.** Effect of simulated heat waves on the behaviour of two mirid predators. *Journal of Applied Entomology* **147**: 486-498.

Wolf, S., **Collatz, J.**, Enkerli, J., Widmer, F., & Romeis, J. **2023.** Assessing potential hybridization between a hypothetical gene drive-modified *Drosophila suzukii* and nontarget *Drosophila* species. *Risk Analysis* **43**: 1921-1932.

Gonthier, J., Arnó, J., Romeis, J., & **Collatz, J. 2023.** Few indirect effects of baculovirus on parasitoids demonstrate high compatibility of biocontrol methods against *Tuta absoluta*. *Pest Management Science* **79**: 1431-1441.

Häner, N., Amiresmaeili, N., Stähli, N., Romeis, J., & **Collatz, J. 2022.** Overwintering of two pupal parasitoids of *Drosophila* under natural conditions. *Journal of Thermal Biology* **126**: 103231.

Gonthier, J., Zhang, Y., Zhang, G., Romeis, J., **Collatz, J. 2022.** Odor learning improves efficacy of egg parasitoids as biocontrol agents against *Tuta absoluta*. *Journal of Pest Science* **96**: 105-117.

Kapranas, A., **Collatz, J.**, Michaelakis, A., Milonas, P. **2022.** Review of the role of sterile insect technique within biologically-based pest control – an appraisal of existing regulatory frameworks. *Entomologia Experimentalis et Applicata* **170**: 385-393.

Duarte-Martinez, L., Martinez Rivero, M.A., Bueno, V.H.P. & **Collatz J. 2022.** Predation behaviour and prey preference of two neotropical mirids against two key lepidopteran pests in tomato. *International Journal of Tropical Pest Science* **42**: 815-825.

Zhang, Y., Tian, X., Wang, H., Casteñé, C., Arnó, J., **Collatz, J.**, Romeis, J., Wu, S., Xian, X., Liu, W., Wan, F. & Zhang, G. **2021.** Host selection behavior of the host-feeding parasitoid *Necremnus tutae* on *Tuta absoluta*. *Entomologia Generalis* **42**: 445-456.

Siffert, A., Cahenzli, F., Kehrli, P., Daniel, C., Dekumbis, V., Egger, B., Furtwengler, J., Minguely, C., Stäheli, N., Widmer, F., Mazzi, D. & **Collatz, J. 2021.** Predation on *Drosophila suzukii* within hedges in the agricultural landscape. *Insects* **12**: 305.

Collatz, J. & Romeis, J. **2021.** Flowers and fruits prolong survival of drosophila pupal parasitoids. *Journal of Applied Entomology* **145**: 629-634.

- Rondoni, G., Borges, I., **Collatz, J.**, Conti, E., Costamagna, A.C., Dumont, F., Evans, E., Grez, A.A., Howe, A.G., Lucas, E., Maisonhaute, J.-E., Onofre Soares, A., Zaviezo, T. & Cock, M.J.W. **2021**. Exotic ladybirds for biological control of herbivorous insects – a review. *Entomologia Experimentalis et Applicata* **169**: 6-27.
- Wolf, S., Barmettler, E., Eisenring, M., Romeis, J. & **Collatz, J.** **2020**. Host searching and host preference of resident pupal parasitoids of *Drosophila suzukii* in the invaded regions. *Pest Management Science* **77**: 243-252.
- Amiresmaeili, N., Romeis, J. & **Collatz, J.** **2020**. Cold tolerance of the drosophila pupal parasitoid *Trichopria drosophilae*. *Journal of Insect Physiology* **125**: 104087.
- Trivellone, V. Meier, M., Cara, C., Pollini Paltrinieri, L., Gugerli, F., Moretti, M., Wolf, S. & **Collatz, J.** **2020**. Multiscale determinants drive parasitization of Drosophilidae by Hymenopteran parasitoids in agricultural landscapes. *Insects* **11**: 334.
- Romeis, J., **Collatz, J.**, Glandorf, D. & Bonsall, M. **2020**. The value of existing regulatory frameworks for the environmental risk assessment of agricultural pest control using gene drives. *Environmental Science and Policy* **108**: 19-36.
- Wolf, S., Boycheva Woltering, S., Romeis, J., & **Collatz, J.** **2020**. *Trichopria drosophilae* parasitizes *Drosophila suzukii* in seven common non-crop fruits. *Journal of Pest Science* **93**: 627-638.
- Boycheva Woltering, S., Romeis, J., & **Collatz, J.** **2019**. Influence of the rearing host on biological parameters of *Trichopria drosophilae*, a potential biological control agent of *Drosophila suzukii*. *Insects*, **10**: 183.
- Wolf, S., Baur, H., & **Collatz, J.** **2019**. Life history of *Vrestovia fidenas*, a potential control agent of *Drosophila suzukii*. *BioControl* **64**: 263-275.
- Wolf, S., Romeis, J., & **Collatz, J.** **2018**. Utilization of plant-derived food sources from annual flower strips by the invasive harlequin ladybird *Harmonia axyridis*. *Biological Control*, **122**: 118-126.
- Wolf, S., Zeisler, C., Sint, D., Romeis, J., Traugott, M. & **Collatz, J.** **2018**. A simple and cost-effective molecular method to track predation on *Drosophila suzukii* in the field. *Journal of Pest Science* **91**: 927-935.
- Mody, K., **Collatz, J.**, Bucharova A. & Dorn, S. **2017**. Crop cultivar affects performance of herbivore enemies and may trigger enhanced pest control by coaction of different parasitoid species. *Agriculture Ecosystems and Environment* **245**: 74-82.
- Mason, P.G., Everatt, M.J., Loomans, A.J.M. & **Collatz, J.** **2017**. Harmonizing the regulation of invertebrate biological control agents in the EPPO region: using the NAPPO region as a model. *EPPO Bulletin* **47**: 79-90.
- Knoll, V., Ellenbroek, T., Romeis, J. & **Collatz, J.** **2017**. Seasonal and regional presence of hymenopteran parasitoids of *Drosophila* in Switzerland and their ability to parasitize the invasive *Drosophila suzukii*. *Scientific Reports* **7**: 40697.
- Tschumi, M., Albrecht, M., **Collatz, J.**, Dubsky, V., Entling, M.H., Najar-Rodriguez, A.J. & Jacot, K. **2016**. Tailored flower strips promote natural enemy biodiversity and pest control in potato crops. *Journal of Applied Ecology* **53**: 1169-1176.
- Tschumi, M., Albrecht, M., Bärtschi, C., **Collatz, J.**, Entling, M.H., & Jacot, K. **2016**. Perennial, species-rich wildflower strips enhance pest control and crop yield. *Agriculture, Ecosystems & Environment* **220**: 97-103.

- Hötling, S., Bittner, C., Tamm, M., Dähn, S., **Collatz, J.**, Steidle, J.L.M. & Schulz, S. **2015**. Identification of a grain beetle macrolide pheromone and its synthesis by ring-closing metathesis using a terminal alkyne. *Organic Letters* **17**: 5004-5007.
- Mody, K., **Collatz, J.** & Dorn, S. **2015**. Plant genotype and the preference and performance of herbivores: cultivar affects apple resistance to the florivorous weevil *Anthonomus pomorum*. *Agricultural and Forest Entomology* **17**: 337-346.
- De Castro, A.A., de S Tavares, W., **Collatz, J.**, de A Pereira, A.I., Serrão, J.E., & Zanuncio, J.C. **2015**. Antibiosis of tomato, *Solanum lycopersicum* (Solanaceae) plants to the Asopinae predator *Supputius cincticeps* (Heteroptera: Pentatomidae). *Invertebrate Survival Journal* **12**: 179-187.
- Hötling, S., Haberlag, B., Tamm, M., **Collatz, J.**, Mack, P., Steidle, J.L.M., Vences, M. & Schulz, S. **2014**. Identification and synthesis of macrolide pheromones of the grain beetle *Oryzaephilus surinamensis* and the frog *Spinomantis aglavei*. *Chemistry – A European Journal* **20**: 3183-3191.
- Collatz, J.** & Dorn, S. **2013**. Tritrophic consequences arising from a host shift between apple and walnut in an oligophagous herbivore. *Biological Control* **65**: 330-337.
- Collatz, J.** & Dorn, S. **2013**. A host plant-derived volatile blend to attract the apple blossom weevil *Anthonomus pomorum* – the essential volatiles include a repellent constituent. *Pest Management Science* **69**: 1092-1098.
- Collatz, J.**, Selzer, P., Fuhrmann, A., Kahl, O., Oehme, R.M., Mackenstedt, U. & Steidle, J.L.M. **2011**. A hidden beneficial – Biology of the tick-wasp *Ixodiphagus hookeri* in Germany. *Journal of Applied Entomology* **135**: 351-358.
- Collatz, J.**, Fuhrmann, A., Selzer, P., Oehme, R.M., Hartelt, K., Kimmig, P., Meiners, T., Mackenstedt, U. & Steidle, J.L.M. **2010**. Being a parasitoid of parasites: Host-finding in the tick wasp *Ixodiphagus hookeri* (Howard) by odours from mammals. *Entomologia Experimentalis et Applicata* **134**: 131-137.
- Collatz, J.**, Tolasch, T. & Steidle, J.L.M. **2009**. Mate finding in the parasitic wasp *Cephalonomia tarsalis* (Ashmead): More than one way to a female's heart. *Journal of Chemical Ecology* **35**: 761-768.
- Schurmann, D., **Collatz, J.**, Hagenbucher, S. & Steidle, J.L.M. **2009**. Olfactory host finding, intermediate memory and its potential ecological adaptation in *Nasonia vitripennis*. *Naturwissenschaften* **96**: 383-391.
- Hartelt, K., Wurst, E., **Collatz, J.**, Zimmermann, G., Kleespies, R., Oehme, R., Kimmig, P., Steidle, J.L.M. & Mackenstedt, U. **2008**. Biological control of the tick *Ixodes ricinus* with entomopathogenic fungi and nematodes: Preliminary results from laboratory experiments. *International Journal of Medical Microbiology* **298**: 314-320.
- Collatz, J.** & Steidle, J.L.M. **2008**. Hunting for moving hosts: *Cephalonomia tarsalis*, a parasitoid of free-living grain beetles. *Basic and Applied Ecology* **9**: 452-457.
- Wyss, U., **Collatz, J.** & Steidle, J.L.M. **2007**. The granary weevil *Sitophilus granarius* and its natural enemy *Lariophagus distinguendus*. *Journal of Plant Diseases and Protection* **114**: 91.
- Collatz, J.**, Müller, C. & Steidle, J.L.M. **2006**. Protein-synthesis dependent long-term memory induced by one single, non-spaced training in a parasitic wasp. *Learning and Memory* **13**: 263-266.
- Müller, C., **Collatz, J.**, Wieland, R. and Steidle, J.L.M. **2006**. Associative learning and memory duration in the parasitic wasp *Lariophagus distinguendus*. *Animal Biology* **56**: 221-232.

Schulz, S., Fuhlendorff, J., Steidle, J.L.M., **Collatz, J.** and Franz, J.-T. **2004.** Identification and biosynthesis of an aggregation pheromone of the storage mite *Chortoglyphus arcuatus*. *ChemBioChem* **5**: 1500-1507.

Other publications

Kehrli, P., Grabenweger, G., Weibel, J., **Collatz, J.**, Egger, B., Guyer, A., ... & Mazzi, D. **2025.** Schadpotenzial und Bekämpfung des Japankäfers in der Schweizer Landwirtschaft. *Agrarforschung* **16**: 118-131.

Kehrli, P., Grabenweger, G., Weibel, J., **Collatz, J.**, Egger, B., Guyer, A., ... & Mazzi, D. **2025.** The Japanese beetle (*Popillia japonica*), an invasive quarantine pest: Biology, spread, potential impact as well as monitoring and control measures. *Agroscope Transfer* **581**: 1-63.

Collatz, J., Siffert, A., Cahenzli, F., Kehrli, P. **2022.** Les prédateurs de la Drosophile du cerisier. *Vignes et Vergers I*: 8-11.

Collatz, J., Siffert, A., Cahenzli, F., Kehrli, P. **2021.** Räuberische Gegenspieler der Kirschessigfliege. *Schweizer Zeitschrift für Obst- und Weinbau* **14**: 6-8.

Collatz, J., Hinz, H., Kaser, J.M. and Freimoser, F.M. **2021.** Chapter 6: Risks and Benefits. In: Mason P. (Ed.) *Biological control – Global Impacts, Challenges and Future Directions of Pest Management*. CSIRO Publishing, Canberra Australia, pp 142-165.

Gugerli, F., Moretti, M., Graf, R., Maier, M., Corrado, C., **Collatz, J.** and Trivellone, V. **2019.** Genetische Vielfalt von *Trichopria drosophilae*, einem Feind der Kirschessigfliege. *Agrarforschung Schweiz* **10**: 396-401.

Collatz, J. and Knoll, V. **2017.** Les parasitoïdes de *Drosophila* en Suisse et leur efficacité sur la drosophile du cerisier. *Revue suisse Viticulture, Arboriculture, Horticulture* **49**: 250-254.

Collatz, J. and Knoll, V. **2017.** Einheimische Schlupfwespen als Gegenspieler der Kirschessigfliege. *Schweizer Zeitschrift für Obst- und Weinbau* **15/17**: 4-6.

Collatz J., Knoll V., Ellenbroek T., Romeis J. **2017.** Parasitoids of *Drosophila* in Switzerland and their potential for biological control of the invasive *Drosophila suzukii*. *Proceedings of the 5th International Symposium on Biological Control of Arthropods* (eds. P.G. Mason, D.R. Gillespie and C. Vincent), CAB International, pp. 245-247.

Schmid, G., Niedermayer, S., **Collatz, J.** and Steidle, J.L.M. **2012.** The long and smelly way to hosts – Long distance orientation of three parasitoids of stored product pests. *Mitteilungen der Dt. Gesellschaft für allgemeine und angewandte Entomologie* **18**: 223-226.

Hartelt, K., **Collatz, J.** and Wurst, E. **2005.** Biologische Zeckenbekämpfung: Erste Ergebnisse mit Pilzen und Erzwespen. *DGaaE-Nachrichten* **19**: 189-190.