Thomas Tscheulin is an Associate Professor of "Spatial Ecology" in the Department of Geography at the University of the Aegean. He focuses his research on biodiversity, species distribution, ecosystem services, integrated pest management, and the ecological dynamics of agricultural landscapes, particularly within Mediterranean island ecosystems.
His scientific publication record, spanning 63 peer-reviewed journal articles, H-factor 33 (Scopus), focuses on insect ecology, pollinator conservation, biological invasions, and sustainable agro-ecosystem management. A significant portion of his research evaluates how landscape configuration, island geography, and environmental disturbances such as fire regimes and grazing levels shape plant and animal communities and plant-pollinator networks across Mediterranean ecosystems. His work also documents the ecological impacts of biological invasions, specifically examining how invasive alien plants alter native plant reproduction and facilitate crop pest dynamics. Additionally, his publications contribute to integrated pest management by demonstrating how understorey biodiversity and native aromatic plants in olive orchards mitigate olive fruit fly infestations. Beyond local agricultural dynamics, he investigates broader environmental pressures, including the effects of climate warming on nectar secretion, as well as anthropogenic stressors such as electromagnetic radiation from telecommunication antennas and managed honeybee density on wild pollinators. Finally, his research advances ecological methodology by evaluating field sampling techniques and developing low-cost video systems to monitor insect behavior and species interactions.

Thomas Tscheulin has been involved in several major research projects focused on pollinator monitoring, capacity building, and ecosystem services. Most recently (projects during the last 5 years), he serves as the scientific coordinator for the Greek side of the ANTENNA project, which focuses on utilizing technology (such as drone Imagery and deep learning techniques) to improve pollinator monitoring. Parallel to this, he acts as the scientific coordinator for Greece, Cyprus, and Bulgaria in the EPIC project, an initiative dedicated to capacity building in pollinator taxonomy, as well as the national coordinator for COST Action (CA22129) InsectAI - Using Image-based AI for Insect Monitoring & Conservation. He also led the Greek team as scientific coordinator for the SPRING project, which worked to strengthen pollinator recovery across Europe through indicators and monitoring systems.

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Indicative recent peer reviewed papers (last 5 years)

Nakas G., Kantsa A., Neokosmidis L., Devalez J., Tscheulin T., Koutsias N., Mescher M.C., De Moraes C.M., Petanidou T. 2026. Bee community and trait-based responses to fire in a Mediterranean landscape. Insect Conservation and Diversity, 19 (3), pp. 530 – 547.

Stavrianakis G., Sentas E., Zafeirelli S., Tscheulin T., Kizos T. 2025. Utilizing Olive Fly Ecology Towards Sustainable Pest Management. Biology, 14 (2), art. no. 125.

Gonzalez V.H., Rancher W., Vigil R., Garino-Heisey I., Oyen K., Tscheulin T., Petanidou T., Hranitz J.M., Barthell J.F. 2024. Bees remain heat tolerant after acute exposure to desiccation and starvation. Journal of Experimental Biology, 227 (24), art. no. jeb249216.

Gonzalez, V.H., Herbison, N., Perez, G.R., Panganiban, T., Haefner, L., Tscheulin, T., Petanidou, T., Hranitz, J. 2024. Bees display limited acclimation capacity for heat tolerance. (Biology Open, 13 (3), art. no. bio060179.

Katsikogiannis, G., Kopsachilis, V., Michalakis, V.I., Kavroudakis, D., Vaitis, M., Tscheulin, T., Stavrianakis, G., Sentas, S., Kizos, T. 2024. Pest Management with Precision Farming Tools: The Case of the Olive Fly (Bactrocera Oleae), Key Challenges in Geography, Part F2252, pp. 295-306.

Losapio, G, De Moraes, C.M. , Nickels, V., Tscheulin, T., Zouros, N., Mescher, M.C. 2024. The effects of shrub encroachment on arthropod communities depend on grazing history. Global Ecology and Conservation 50, e02819.

Losapio, G., De Moraes, C.M., Dirzo, R., Tscheulin, T., Zouros, N., Mescher, M.C. 2024. Habitat protection and removal of encroaching shrubs support the recovery of biodiversity and ecosystem functioning, Conservation Science and Practice, 6 (4), art. no. e13111.

Stavrianakis, G., Sentas, E., Stattegger, S.R., Tscheulin, T., Kizos, T. 2024. Effect of olive grove's understorey management on arthropod diversity. Agroecology and Sustainable Food Systems, in press.

Katsikogiannis, G., Kavroudakis, D., Tscheulin, T., Kizos, T. 2023. Population Dynamics of the Olive Fly, Bactrocera oleae (Diptera: Tephritidae), Are Influenced by Different Climates, Seasons, and Pest Management. Sustainability (Switzerland) 15(19), 14466.

Katsikogiannis, G., Kopsachilis, V., Michalakis, V.I., Kavroudakis, D., Vaitis, M., Tscheulin, T., Stavrianakis, G., Sentas, S., Kizos, T. 2023. Pest Management with Precision Farming Tools: The Case of the Olive Fly (Bactrocera Oleae). Key Challenges in Geography, F2252, 295-306.

Stattegger S.R.,Tscheulin T., Mescher M.C., Kizos T, De Moraes C.M. and Meyer S. 2023. The presence of native aromatic species in understorey plant communities predicts reduced infestation by olive fruit flies in olive orchards on Lesvos Island. Journal of Applied Entomology, 147(10):1045-1056.

Stavrianakis, G., Stattegger, S.R., Sentas, E., (...), Tscheulin, T., Kizos, A. 2023. Understorey biodiversity management in olive groves for integrated management of olive tree natural enemies. Entomologia Hellenica, 32(3), pp. 17-24.

Tscheulin, T,, Abramson, C.I. 2023. An Inexpensive Low-cost Video Monitoring System for Automated Recording of Behavior and Ecological Interactions. International Journal of Comparative Psychology. 36(1), pp 1-6.

Kantsa, A., Garcia, J. E., Raguso, R. A., Dyer, A. G., Steen, R., Tscheulin, T., & Petanidou, T. 2022. Intrafloral patterns of color and scent in capparis spinosa L. and the ghosts of its selection past. American Journal of Botany, doi:10.1002/ajb2.16098.

Amparo L., Muller A., Ebmer, A.W., Dathe H.H.,Scheuchl E., Schwarz M., Risch S., Pauly A., Devalez J., Tscheulin T., Gomez-Martinez C. and Papas E. 2021. Impacts of beekeeping on wild bee diversity and pollination networks in the Aegean Archipelago. Ecography 44(9): 1353-1365.

Shrestha M., Garcia J.E., Thomas F., Howard S.R., Chua, J.H.J., Tscheulin T., Dorin A., Nielsen A. and Dyer A.G. 2021. Insects in the City: Does Remnant Native Habitat Influence Insect Order Distributions? Diversity, 13, 148.