

Publications | Petra Dieker

BIODIVERSITY IN SPACE AND TIME

- 1) Mupepele, A.C., Hellwig, N., **Dieker, P.**, Klein, A.M. (2025): What evidence exists on wild bee trends in Germany? A systematic map. *Environmental Evidence* 14 (11): <https://doi.org/10.1186/s13750-025-00364-7>
- 2) Heinze, P., **Dieker, P.**, Rowland, H.M., Schielzeth, H. (2022): Evidence for morph-specific substrate choice in a green-brown polymorphic grasshopper. *Behavioral Ecology* 33 (1): 17-26.
- 3) Muenchow, J., **Dieker, P.**, Böttcher, T., Brock, J., Didenko, G., Fremout, T., Jakubka, D., Jentsch, A., Nüst, D., Richter, M., Rodríguez, E.F., Arismendiz Rodríguez, R., Rollenbeck, R., Salazar Zarsosa, P., Schratz, P., Brenning, A. (2020): Monitoring and predictive mapping of floristic biodiversity along a climatic gradient in ENSO's terrestrial core region, NW Peru. *Ecography* 43 (12): 1878-1890.
- 4) Schielzeth, H., **Dieker, P.** (2020): The green-brown polymorphism of the club-legged grasshopper *Gomphocerus sibiricus* is heritable and appears genetically simple. *BMC Evolutionary Biology* 20 (1): 1-9.
- 5) Franzén, M., **Dieker, P.**, Schrader, J., Helm, A. (2019): Rapid plant colonization of the forelands of a vanishing glacier is strongly associated with species traits. *Arctic, Antarctic, and Alpine Research* 51 (1): 366-378.
- 6) **Dieker, P.**, Beckmann, L., Teckentrup, J., Schielzeth, H. (2018): Spatial analyses of two color polymorphisms in an alpine grasshopper reveal a role of small-scale heterogeneity. *Ecology and Evolution* 8 (15), 7273-7284
- 7) Muenchow, J., **Dieker, P.**, Kluge, J., Kessler, M., von Wehrden, H. (2018): A review of ecological gradient research in the Tropics: identifying research gaps, future directions, and conservation priorities. *Biodiversity and Conservation* 27: 273-285.
- 8) Drees, C., Husemann, M., Homburg, K., Brandt, P., **Dieker, P.**, Habel, J.C., von Wehrden, H., Zumstein, P., Assmann, T. (2016): Molecular analyses and species distribution models indicate cryptic northern mountain refugia for a forest-dwelling ground beetle. *Journal of Biogeography* 43 (11): 2223-2236.
- 9) Kamp, J., Pelster, A., Gaedicke, L., Karthäuser, J., **Dieker, P.**, Mantel, K. (2015): High nest survival and productivity of Northern Lapwings *Vanellus vanellus* breeding on urban brownfield sites. *Journal of Ornithology* 156: 179-190.
- 10) Franzén, M., **Dieker, P.** (2014): The influence of terrain age and altitude on the arthropod communities found on recently deglaciated terrain. *Current Zoology* 60 (2): 203-220.
- 11) **Dieker, P.**, Drees, C., Schmitt, T., Assmann, T. (2013): Low genetic diversity of a high mountain burnet moth species in the Pyrenees. *Conservation Genetics* 14: 231-236.
- 12) **Dieker, P.**, Drees, C., Assmann, T. (2011): Two high-mountain burnet moth species (Lepidoptera, Zygaenidae) react differently to the global change drivers climate and land-use. *Biological Conservation* 144 (12): 2810-2810.
- 13) Drees, C., Brandmayr, P., Buse, J., **Dieker, P.**, Gürlich, S., Habel, J., Harry, I., Härdtle, W., Matern, A., Meyer, H., Pizzolotto, R., Quante, M., Schäfer, K., Schuldt, A., Taboada, A., Assmann, T. (2011): Poleward range expansion without a southern contraction in the ground beetle *Agonum viridicupreum* (Coleoptera, Carabidae). *ZooKeys* 100: 333-352
- 14) Habel, J. C., **Dieker, P.**, Schmitt, T. (2009): Biogeographical connections between the Maghreb and the Mediterranean peninsulas of southern Europe. *Biological Journal of the Linnean Society* 98 (3): 693-703.

- i. Lindermann, L., Krüger, L., Valdaru, E., **Dieker, P.** (in prep.): Automated identification of wild bees and wasps in nesting observation blocks.
- 15) Potts, S. G., Bartomeus, I., Biesmeijer, K., Breez, T., Casino, A., Dauber, J., **Dieker, P.**, Hochkirch, A., Hoyer, T. T., Isaak, N., Kleijn, D., Laikre, L., Mandelik, Y., Montagna, M., Ockinger, E., Oteman, B., Povellato, A., Quaranta, M., Roy, D., Schweiger, O., Settele, J., Stahls-Makela, G., Troost, G., van der Wal, R., Vujic, A., Zang, L. (2024): Options for an EU Pollinator Monitoring Scheme. Publications Office of the European Union, Luxembourg, 2024, doi:10.2760/2005545, JRC138660.
- 16) Settele J., Aracil A., Arnberg H., Åström S., Bacon J., Balalaikins M., Báldi A., Bane M., Barda M., Barea-Azcón J.M., Beckert J., Berlanga F., Bevk D., Biesmeijer J.C., Bonelli S., Bosch J., Botham M., Bourn N., Bozua M., Brosens D., Burguillos A., Breeze T.D., Buchner D., Cabiddu L., Cancela J.P., Cantú-Salazar L., Carbone D., Caritg R., Carvell C., Castro S., Collins S., Dauber J., De Flores M., de Groot M., Dapporto L., Demeter I., Dennis E.B., **Dieker P.**, Dopagne C., Dorchin A., Dvořák T., Ellis S., Escobés R., Eykelboom J., Fric Z.F., Fernández-García J.M., Flaminio S., Fontaine C., Frenzel M., Gecchele L., Gelaude E., Ghisbain G., Glogovčan P., Gracianteparaluceta A., Grescho V., Haase P., Harpke A., Harrower C., Haubrock P.J., Heliölä J., Herrera-Mesías F., Hlaváček A., Honchar H., Houard X., Høye T.T., Isaac N.J.B., Ješovnik Ana, Jocqué M., Johnson K., Judge M., Karlis G., Kablar D., Kazlauskis K., Knapp M., Koderman B., Kolev Z., Komac B., Kovács-Hostyánszki A., Kühn E., Kuussaari M., Lang A., Le Divelec R., Leese F., Loureiro J., Lutovinovas E., Lysaght L., Maebe K., Maes D., Mandery K., McGowan D., Mestdagh X., Menger J.S., Michez D., Middlebrook I., Milotic T., Monasterio Y., Monteiro E., López Munguira M., Musche M., Neukermans A., Nogueira Tavares C., Östrand F., Oteman B., Ozden O., Pavlíčko A., Pérez-Bañón C., Perrard A., Petanidou T., Pettersson L.B., Pladevall C., Pocock M.J.O., Pollet M., Potts S.G., Quaranta M., Ranalli R., Rákosy L., Rasmont P., Reverté Saiz S., Reyserhove L., Roberts S.P.M., Rodrigo A., Rojo S., Rosa P., Roth T., Rüdiger J., Šašić M., Scalercio S., Schamp K., Schmidt V., Schmucki R., Schönwälder M., Schweiger O., Sevilleja C.G., Sielezniew I., Sielezniew M., Simoens N., Sinclair J.S., Slabbert E., Sobczyk-Moran G., Soors J., Ståhls G., Stavrianakis G., Stavrinos M., Stefanescu C., Štrobl M., Šturm R., Švitra G., Szabadfalvi A., Sziget V., Teunissen L., Tiitsaar A., Titeux N., Tschulin T., Tzirkalli E., Ubach A., van Breda A., van Breda J., Van Deijk J., van de Meutter F., van den Heuvel Y., Vanden Houten J., Vander Mijnsbrugge K., van Gompel W., Vanhaverbeke K., van Nieuwstadt M., van Swaay C.A.M., Varnava A., Vereecken N.J., Verkaik I., Verovnik R., Vilks K., Vizauer T.C., Vray S., Vujić A., Warren M.S., Weigand A., Wever R., Whitfield A., Wood T.J., Wynhoff I., Zavatta L., Roy D.B. (2024) SPRING - Strengthening Pollinator Recovery through Indicators and monitoring. Helmholtz-Centre for Environmental Research – UFZ, Leipzig, Germany
- 17) Lindermann, L., Grabener, S., Hellwig, N., Stahl, J., **Dieker, P.** (2024) Citizen Science-Based Monitoring of Cavity-Nesting Wild Bees and Wasps – Benefits for Volunteers, Insects, and Ecological Science. *Citizen Science: Theory and Practice*, 9(1): 22, pp. 1–12.
- 18) Kroiher, F., Michler, B., Bolte, A., Degen, B., Krüger, I., Michel, A., Hester, Z., Rölleke, H., Sanders, T., Ammer, C., Daur, N., Gärtner, S., Goßner, M.M., Kleinschmit, J., Meyer, P., Blaschke, M., **Dieker, P.**, Kätzel, R., Wirth, C., Elmer, M. (2024): 3. Fachworkshop ‚Nationales Biodiversitätsmonitoring im Wald‘ (NaBioWald). Erfassungsmethoden. *Thünen Working Paper*, 242, 48 S.
- 19) Kasiske, T., Dauber, J., **Dieker, P.**, Harpke, A., Klimek, S., Kühn, Levers, C., E., Schwieder, M., Settele, J., Musche, M. (2024): Assessing landscape-level effects of permanent grassland management and landscape configuration on open-land butterflies based on national monitoring data. *Biodiversity and Conservation*, <https://doi.org/10.1007/s10531-024-02861-6>

- 20) Hellwig, N., Sommerlandt, F. M. J., Grabener, S., Lindermann, L., Sickel, W., Krüger, L., **Dieker, P.** (2024): Six steps towards a spatial design for large-scale pollinator surveillance monitoring. *Insect*. 15(4), 229.
- 21) Sickel, W., Kulow, J., Krüger, L., **Dieker, P.** (2023): BEE-quest of the nest: A novel method for eDNA-based, non-lethal detection of cavity-nesting hymenopterans and other arthropods. *Environmental DNA*, 5: 1163-1176.
- 22) Sickel, W., Zizka, V., Scherges, A., Bourlat, S.J., **Dieker, P.** (2023). Abundance estimation with DNA metabarcoding – recent advancements for terrestrial arthropods. *Metabarcoding & Metagenomics*, 7: e112290. <https://doi.org/10.3897/mbmg.7.112290>
- 23) Bayr, U., Cobourn, K., **Dieker, P.**, WJ Fjellstad, Herzog, F., Lankoski, J. (2023): Guidelines for the development of an OECD farmland habitat biodiversity indicator. *OECD Food, Agriculture and Fisheries Paper*, 201.
- 24) Mupepele, A.-C., Hellwig, N., **Dieker, P.**, Klein A-M.: (2023): What evidence exists on wild-bee trends in Germany? Research protocol for a systematic map: a Systematic Map Protocol. PROCEED-22-00059, <https://doi.org/10.57808/proceed.2023.2>
- 25) **Dieker, P.**, Klimek, S., Dauber, J. (2021): Zielbilder für Biodiversität in Agrarlandschaften. *Geographische Rundschau* 5: 36-39.
- 26) Pe'ér, G., Lakner, S., Seppelt, R., Bezák, P., Bonn, A., Concepción, E. D., Creutzig, F., Daub C.-H., Díaz, M., **Dieker, P.**, Eisenhauer, N., Hagedorn, G., Hansjürgens, B., Harrer-Puchner, G., Herzon, I., Hickler, T., Jetzkowitz, J., Kazakova, Y., Kindlmann, P., Kirchner, M., Klein, A.-M., Linow, S., Lomba, Â., López-Bao, J.V., Metta, M., Morales, M.B., Moreira, F., Mupepele, A.-C., Navarro, A., Oppermann, R., Rac, I., Röder, N., Schäfer, M., Sirami, C., Streck, C., Šumrada, T., Tielbörger, K., Underberg, E., Wagener-Lohse, G., Baumann, F. (2020): The EU's Common Agriculture Policy and Sustainable Farming: A statement by scientists. Zenodo: DOI 10.5281/zenodo.4311314
- 27) Pe'ér, G., Bonn, A., Bruelheide, H., **Dieker, P.**, Eisenhauer, N., Feindt, P.H., Hagedorn, G., Hansjürgens, B., Herzon, I., Lomba, Â., Marquard, E., Moreira, F., Nitsch, H., Oppermann, R., Perino, A., Röder, N., Schleyer, C., Schindler, S., Wolf, C., Zinngrebe, Y., Lakner, S. (2020): Action needed for the EU Common Agricultural Policy to address sustainability challenges. *People and Nature* 2 (2): 305-316.

DEVELOPMENT AND EVALUATION OF MEASURES TO PROMOTE BIODIVERSITY

- ii. Grabener, S., Assmann, T., **Dieker, P.**, Fichtner, A., Härdtle, W., Laschke, J., Schmid-Egger, C., Temperton, V., Drees, C. (under review): Ecological assessment of agri-environmental schemes by means of flower visitation interaction diversity.
- 28) Ernst, L.M., Thiele, J., **Dieker, P.**, Temperton, V. M., Dauber, J. (2025): Biodiversity on old permanent versus restored grassland is driven by small-scale land-use intensity and habitat connectivity. *Restoration Ecology* 33 (4): e70029.
- 29) Schubert, L.F., Hellwig, N., Kirmer, A., Schmid-Egger, C., Schmidt, A., **Dieker, P.**, Tischew, S. (2022): Habitat quality and surrounding landscape structures influence wild bee occurrence in perennial wildflower strips. *Basic and Applied Ecology* 60: 76-86.
- 30) Hellwig, N., Schubert, L.F., Kirmer, A., Tischew, S., **Dieker, P.** (2022): Effects of wildflower strips, landscape structure and agricultural practices on wild bee assemblages – A matter of data resolution and spatial scale? *Agriculture, Ecosystems & Environment* 326: 107764.

BOOK CHAPTERS AND IDENTIFICATION KEYS

- 31) Grabener, S., Lindermann, L., Schiele, S., Bendixen, L., Fornoff, F., Hopfenmüller, S., Stahl, J., **Dieker, P.** (in press): Wildbienen und Wespen in Nisthilfen bestimmen: Ein Bestimmungsschlüssel

für Deutschland. Thünen-Ratgeber. Braunschweig: Thünen-Institut, 150 S., DOI: DOI:10.3220/253-2025-168; zweite, vollständig überarbeitete Neuauflage.

- 32) Lindermann, L., Grabener, S., Fornoff, F., Hopfenmüller, S., Schiele, S., Stahl, S., **Dieker, P.** (2023): Wildbienen und Wespen in Nisthilfen bestimmen: Ein Bestimmungsschlüssel für Deutschland. Thünen-Ratgeber. Braunschweig: Thünen-Institut für Biodiversität, 132 S, DOI:10.3220/ - MX1685523077000
- 33) **Dieker, P.**, Taboada, A., von Wehrden, H. (2014): Habitat suitability models in conservation planning—a short introduction. In: Habel, J.C., Meyer, M., Schmitt, T. (eds): *Jewels In The Mist – A synopsis on the endangered Violet Copper butterfly *Lycaena helle**. Pensoft, 57-66.

FURTHER PUBLICATIONS

- 34) Engler, J.O., Cord, A.F., **Dieker, P.**, Wägele, J.W., Rödder, D. (2014): Accounting for the 'network' in the Natura 2000 network: A response to Hochkirch et al. 2013. arXiv preprint arXiv:1408.7076
- 35) Assmann T., Buse J., **Dieker P.**, Drees C., Eggert B., Harry I., Homburg K., Krause R.H., Matern A., Schuldt A., Taboada A. (2013): Historisch alte Waldstandorte: Bedeutung und Wert von Lebensraumkontinuität für Tiere. *Naturschutz und Biologische Vielfalt* 131: 65-82.
- 36) **Dieker, P.**, Mattes, H. (2010): Larval ecology determines the frequency of butterflies: A case study of three syntopic occurring swallowtail butterfly species (*Papilio xuthus*, *P. maackii* and *P. machaon*). In: Mattes, H. (Ed.): *Living alongside with the Tiger - The Fauna of the Lazovsky Zapovednik, Sikhote Alin*. *Arbeiten aus dem Institut für Landschaftsökologie Münster* 18: 103-109.