

Curriculum Vitae

Annika Louise Hass



Personal details

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Academic Education

2013 - 2018	PhD in Biological Sciences , University of Göttingen, Agroecology group, completed with "Summa cum laude", Thesis: „Farmland heterogeneity effects on biodiversity and pollination services“, Supervisors: Teja Tscharnke, Péter Batáry, Yann Clough
2010 – 2012	MSc “Biodiversity, Ecology and Evolution“ University of Göttingen, grade 1.0 Thesis: “Habitat heterogeneity is the key: Polycultures determine bee diversity and complexity of plant-pollinator-webs in rice dominated landscapes” Supervisors: Teja Tscharnke and Catrin Westphal
2007 – 2010	BSc “Landscape Management and Nature Conservation“ , University for Sustainable Development Eberswalde (HNEE), grade 1.5 Thesis: “Flower visiting insects on a short rotation coppice in Jamikow and the surrounding landscape” Supervisors: Ulrich Schulz and Oliver Brauner

Academic career

Since 2018	Postdoc position , Functional Agrobiodiversity group, University of Göttingen, research and teaching
2017 – 2018	Research position , Agroecology group, University of Göttingen, manuscript and project proposal writing, field work coordination
2012 – 2016	Research position in the “FarmLand” project, Agroecology group, University of Göttingen, regional project coordination, data collection, bee species identification, GIS, data analysis (including 1 year of maternal leave)
2010 – 2012	Student assistant in the Agroecology group, University of Göttingen, field work assistance, GIS and insect identification
2010	Student assistant at the University for Sustainable Development Eberswalde (HNEE), assistance for the course “Plant identification”

Internships, volunteer activities and visits abroad

2012	Research stay for master thesis at the International Rice Research Institute (IRRI), Los Baños, Philippinen, LEGATO-Project for sustainable rice production (3 months)
2008 – 2009	Internship at Balkani Wildlife Society in Sofia, Bulgaria, conservation and restoration of Dragoman wetlands (4 months)
2006 – 2007	Voluntary ecological year (FÖJ) , Freilandlabor Britz in Berlin, environmental education and guided tours for children

Research grants

2021 - 2024	Project ComBee “Interactions between landscape structure and combined agri-environmental measures on the diversity, population development and health status of wild and honey bees”, joint research project with Prof. Dr. Robert Paxton, University of Halle, Institute of Biology/Zoology, project leader with Catrin Westphal <u>Funder:</u> Federal Ministry of Food and Agriculture (BMEL)
2020 - 2023	Project KOOPERATIV “Promoting biodiversity at the landscape level - Participatory research project on ecological impact, cost-effectiveness and governance of cooperative agri-environmental measures”, joint research project with Prof. Dr. Tobias Plieninger, University of Göttingen, Social-Ecological Interactions in Agricultural Systems, Prof. Dr. Sebastian Lakner – University of Rostock, Agricultural Economics, project leader with Catrin Westphal <u>Funder 2020-2021:</u> The German Federal Environmental Foundation (Deutsche Bundesstiftung Umwelt, DBU) <u>Funder 2021-2023:</u> Federal Agency for Nature Conservation (BfN)
2022 - 2025	Project InterRest “Interactive effects of local and landscape scale restoration of semi-natural grasslands and agricultural fields on species interactions and ecosystem functions in different social-ecological systems” Collaborative project with partners from six European countries, has been recommended for funding by the ERA-net Biodiversa Joint Call 2020/2021, project leader with Catrin Westphal <u>National funder:</u> German Research Foundation, DFG (final decision pending)

Awards

2017	Poster „highly commended for student poster prize“ at the Joint Annual Meeting of the British Ecological Society (BES) and of the Ecological Society of Germany, Austria and Switzerland (GfÖ)
2012	Prize for best poster at the Annual Meeting of the Ecological Society of Germany, Austria and Switzerland (GfÖ)
2011	Schubert-Prize for Bachelor thesis , Johannes-Schubert-Stiftung, Eberswalde
2010	Lower Saxony Scholarship (Landesstipendium Niedersachsen)

Memberships

Ecological Society of Germany, Austria and Switzerland (GfÖ)
Working group “Wild bees” at the NGO Biologische Schutzgemeinschaft Göttingen

Languages

English: fluently
Spanish: basic knowledge (level B1)

Activities as a reviewer

Agriculture Ecosystems and Environment, Ambio, Basic and Applied Ecology, Biological Conservation, Conservation Biology, BMC Ecology, Diversity and Distributions, Ecography, Environmental Entomology, European Journal of Entomology, Global Ecology and Conservation, Global Change Biology, Insect Conservation and Diversity, Journal of Applied Ecology, Journal of Insect Conservation, Landscape and Urban Planning, Oecologia, Peer J

Activities as an editor

Currently I am a Guest Editor at Basic and Applied Ecology and organize the special issue “Biodiversity and ecosystem services in agricultural systems: field to landscape-scale management for biodiversity-yield synergies” together with Catrin Westphal, Maria Kernecker and María Felipe-Lucia.

Publications

- Herbertson, L., J. Ekroos M. Albrecht, I. Bartomeus, P. Batáry, R. Bommarco, P. Caplat, T. Diekötter, J.M. Ekestam, M.H. Entling, S. Farbu, N. Farwig, J.P. Gonzalez-Varo, A.L. **Hass**, A. Holzschuh, S. Hopfenmüller, A. Jakobsson, B. Jauker, A. Kovács-Hostyánszki, W. Kleve, W.E. Kunin, S.A.M. Lindström, S. Mullen, E. Öckinger, T. Petanidou, S.G. Potts, E.F. Power, M. Rundlöf, K. Seibel, V. Söber, A. Söderman, I. Steffan-Dewenter, J.C. Stout, T. Teder, T. Tscharntke & H.G. Smith. 2021. Bees increase seed set of wild plants while the proportion of arable land has variable effects on pollination in European agricultural landscapes, *Plant Ecology and Evolution* (accepted)
- Piko, J., A. Keller, C. Geppert, P. Batáry, T. Tscharntke, C. Westphal, and **A.L. Hass**. 2021. Effects of three flower field types on bumblebees and their pollen diets. *Basic and Applied Ecology* 52:95–108.
- Geppert, C., **A. Hass**, R. Földesi, B. Donkó, A. Akter, T. Tscharntke, and P. Batáry. 2020. Agri-environment schemes enhance pollinator richness and abundance but bumblebee reproduction depends on field size. *Journal of Applied Ecology* 57:1818–1828.
- Alignier, A., X. O. Solé-Senan, I. Robleño, B. Baraibar, L. Fahrig, D. Giralt, N. Gross, J.-L. Martin, J. Recasens, C. Sirami, G. Siriwardena, A. B. Baillod, C. Bertrand, R. Carrié, **A. Hass**, L. Henckel, P. Miguet, I. Badenhausser, J. Baudry, G. Bota, V. Bretagnolle, L. Brotons, F. Burel, F. Calatayud, Y. Clough, R. Georges, A. Gibon, J. Girard, K. Lindsay, J. Minano, S. Mitchell, N. Patry, B. Poulin, T. Tscharntke, A. Vialatte, C. Viole, N. Yaverscovski, and P. Batáry. 2020. Configurational crop heterogeneity increases within-field plant diversity. *Journal of Applied Ecology* 57:654–663.
- Sirami, C., N. Gross, A. B. Baillod, C. Bertrand, R. Carrié, **A. Hass**, L. Henckel, P. Miguet, C. Vuillot, A. Alignier, J. Girard, P. Batáry, Y. Clough, C. Viole, D. Giralt, G. Bota, I. Badenhausser, G. Lefebvre, B. Gauffre, A. Vialatte, F. Calatayud, A. Gil-Tena, L. Tischendorf, S. Mitchell, K. Lindsay, R. Georges, S. Hilaire, J. Recasens, X. O. Solé-Senan, I. Robleño, J. Bosch, J. A. Barrientos, A. Ricarte, M. Á. Marcos-Garcia, J. Miñano, R. Mathevret, A. Gibon, J. Baudry, G. Balent, B. Poulin, F. Burel, T. Tscharntke, V. Bretagnolle, G. Siriwardena, A. Ouin, L. Brotons, J.-L. Martin, and L. Fahrig. 2019. Increasing crop heterogeneity enhances multitrophic diversity across agricultural regions. *Proceedings of the National Academy of Sciences* 116:16442–16447.
- Hass**, A.L., L. Brachmann, P. Batáry, Y. Clough, H. Behling, and T. Tscharntke. 2019. Maize-dominated landscapes reduce bumblebee colony growth through pollen diversity loss. *Journal of Applied Ecology* 56:294–304.
- Loos, J., P. Batáry, I. Grass, C. Westphal, S. Bänsch, A. B. Baillod, **A. L. Hass**, J. Rosa, and T. Tscharntke. 2019. Vulnerability of Ecosystem Services in Farmland Depends on Landscape Management. Pages 91–96 in M. Schröter, A. Bonn, S. Klotz, R. Seppelt, and C. Baessler, editors. *Atlas of Ecosystem Services: Drivers, Risks, and Societal Responses*. Springer International Publishing, Cham.
- Settele, J., J. H. Spangenberg, K. L. Heong, I. Kühn, S. Klotz, G. Arida, B. Burkhard, J. V. Bustamante, J. Cabbigat, L. X. Canh, J. L. A. Catindig, H. Van Chien, L. Q. Cuong, M. Escalada, C. Görg, V. Grescho, S. Grossmann, B. A. R. Hadi, L. H. Hai, A. Harpke, **A. L. Hass**, N. Hirneisen, F. G. Horgan, S. Hotes, R. Jahn, A. Klotzbücher, T. Klotzbücher, F. Langerwisch, D. B. Magcale-Macandog, N. H. Manh, G. Marion, L. Marquez, J. Ott, L. Penev, B. Rodriguez-Labajos, C. Sann, C. Sattler, M. Schädler, S. Scheu, A. Schmidt, J. Schrader, O. Schweiger, R. Seppelt, N. Van Sinh, P. Stoev, S. Stoll-Kleemann, V. Tekken, K. Thonicke, Y. A. Trisyono, D. T. Truong, L. Q. Tuan, M. Türke, T. Václavík, D. Vetterlein,

S. "Bong" Villareal, C. Westphal, and M. Wiemers. 2019. Rice Ecosystem Services in South-East Asia: The LEGATO Project, Its Approaches and Main Results with a Focus on Biocontrol Services. Pages 373–382 in M. Schröter, A. Bonn, S. Klotz, R. Seppelt, and C. Baessler, editors. *Atlas of Ecosystem Services: Drivers, Risks, and Societal Responses*. Springer International Publishing, Cham.

Hass, A.L., U. G. Kormann, T. Tscharntke, Y. Clough, A. B. Baillod, C. Sirami, L. Fahrig, J.-L. Martin, J. Baudry, C. Bertrand, J. Bosch, L. Brotons, F. Burel, R. Georges, D. Giralt, M. Á. Marcos-García, A. Ricarte, G. Siriwardena, and P. Batáry. 2018. Landscape configurational heterogeneity by small-scale agriculture, not crop diversity, maintains pollinators and plant reproduction in western Europe. *Proc. R. Soc. B* 285:20172242.

(Highlighted in Nature)

Hass, A.L., B. Liese, K. L. Heong, J. Settele, T. Tscharntke, and C. Westphal. 2018. Plant-pollinator interactions and bee functional diversity are driven by agroforests in rice-dominated landscapes. *Agriculture, Ecosystems & Environment* 253:140–147.

Settele, J., K. L. Heong, I. Kühn, S. Klotz, J. H. Spangenberg, G. Arida, A. Beaurepaire, S. Beck, E. Bergmeier, B. Burkhard, R. Brandl, J. V. Bustamante, A. Butler, J. Cabigat, X. C. Le, J. L. A. Catindig, V. C. Ho, Q. C. Le, K. B. Dang, M. Escalada, C. Dominik, M. Franzén, O. Fried, C. Görg, V. Grescho, S. Grossmann, G. M. Gurr, B. A. R. Hadi, H. H. Le, A. Harpke, **A.L. Hass**, N. Hirneisen, F. G. Horgan, S. Hotes, Y. Isoda, R. Jahn, H. Kettle, A. Klotzbücher, T. Klotzbücher, F. Langerwisch, W.-H. Loke, Y.-P. Lin, Z. Lu, K.-Y. Lum, D. B. Magcale-Macandog, G. Marion, L. Marquez, F. Müller, H. M. Nguyen, Q. A. Nguyen, V. S. Nguyen, J. Ott, L. Penev, H. T. Pham, N. Radermacher, B. Rodriguez-Labajos, C. Sann, C. Sattler, M. Schädler, S. Scheu, A. Schmidt, J. Schrader, O. Schweiger, R. Seppelt, K. Soitong, P. Stoev, S. Stoll-Kleemann, V. Tekken, K. Thonicke, B. Tilliger, K. Tobias, Y. Andi Trisyono, T. T. Dao, T. Tscharntke, Q. T. Le, M. Türke, T. Václavík, D. Vetterlein, S. 'Bong' Villareal, K. C. Vu, Q. Vu, W. W. Weisser, C. Westphal, Z. Zhu, and M. Wiemers. 2018. Rice ecosystem services in South-east Asia. *Paddy and Water Environment* 16:211–224.

Conference contributions

Hass, A.L., Piko, J., Schweiger, S., Keller, A., Beyer, N., Batáry, P., Tscharntke, T., Westphal, C. Local and landscape effects of agri-environment schemes and crop types on pollen collection of bumble bees in agricultural landscapes

Talk, 50th Annual Meeting of the Ecological Society of Germany, Austria and Switzerland (GfÖ), 2021, online

Hass, A.L., A. Wiedenmann, C. Herrera Krings, J. Piko, C. Geppert, D. Koranyi, V. Rösch, N. Szpisjak, E. Török, E. Gottschalk, Y. Fabian, K. Darras, T. Tscharntke, C. Westphal, P. Batáry. Local and landscape effects of agri-environment schemes and crop types on pollen collection of bumble bees in agricultural landscapes

Talk, 49th Annual Meeting of the Ecological Society of Germany, Austria and Switzerland (GfÖ), 2019, Münster

Hass, A.L., Batáry, P., Clough, Y., Tscharntke, T. Landscape scale crop heterogeneity and crop identity affect pollinators, their pollen diets and pollination services

Talk, Student Conference on Conservation Science (SCCS), 2018, Tihany, Hungary

Fahrig, L., Collins, S., **Hass, A.L.**, Monck-Whipp, L., Put, J., Sirami, C., Martin, J.-L. Cropland heterogeneity benefits biodiversity by facilitating resource availability and access

Talk by L. Fahrig, North American Congress for Conservation Biology 2018, Toronto, Canada

Hass, A.L., Kormann, U., Tscharntke, T., Clough, Y, Bosem Baillod, A., Sirami, C., Fahrig, L., Martin, J.L., Baudry, J., Bertrand, C., Bosch, J., Brotons, L., Burel, F., Georges, R., Giralt, D., Marcos-García, M.A., Ricarte, A., Siriwardena, G., Batáry, P. Landscape configurational heterogeneity by small-scale agriculture, not crop diversity, maintains pollination services in Western Europe

Poster, Ecology Across Borders: Joint Annual Meeting of the British Ecological Society (BES) and the Ecological Society of Germany, Austria and Switzerland (GfÖ), 2017, Ghent, Belgium

Hass A.L., Bosem Baillod, A., Batáry, P., Sirami, C., Tscharntke T. Farmland heterogeneity effects on trait filtering of predatory and flower-visiting arthropod communities across Europe.

Talk, 46th Annual Meeting of the Ecological Society of Germany, Austria and Switzerland (GfÖ), 2016, Marburg

Hass, A.L., Brachmann, L., Batáry, P., Clough, Y., Tscharntke, T. Landscape-wide crop heterogeneity vs. crop identity: enhanced percent maize reduces reproduction success of bumble bees

Talk, 45th Annual Meeting of the Ecological Society of Germany, Austria and Switzerland (GfÖ), 2015, Göttingen

Hass, A.L., Heong, K.L., Settele, J., Tscharntke, T., Westphal, C. Polycultures increase abundance of cavity nesting Hymenoptera and parasitization rate in simple, but not complex tropical rice landscapes

Poster, 43th Annual Meeting of the Ecological Society of Germany, Austria and Switzerland (GfÖ), 2013, Potsdam

Hass, A.L., Liese, B., Heong, K.L., Settele, J., Tscharntke, T., Westphal, C. Effects of woody habitat types on bee diversity and abundance in rice-dominated landscapes in the Philippines

Poster, 42th Annual Meeting of the Ecological Society of Germany, Austria and Switzerland (GfÖ), 2012, Lüneburg

Hass, A.L., Brauner, O., Schulz, U. (2010), Diversity, distribution and abundance of honeybees (*Apis mellifera*) and wild bees (Apidae) on a willow short-rotation coppice

Poster, Entomologentagung DGaaE, 2010, Berlin