



Pollination ecology: how do bees move across the landscape and fashion plant reproduction?

Results

Project Information

BEE-MOVE

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[Project website](#)

DOI

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EC signature date

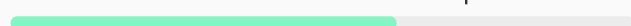
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EU contribution

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CORDIS provides links to public deliverables and publications of HORIZON projects.

Links to deliverables and publications from FP7 projects, as well as links to some specific result types such as dataset and software, are dynamically retrieved from [OpenAIRE](#) .

Deliverables

[Open Research Data Pilot \(1\)](#)



Publications

Peer reviewed articles (14)

[Honey bees cannot sense harmful concentrations of metal pollutants in food](#) 

Author(s): Coline Monchanin, Maria Gabriela de Brito Sanchez, Lorelei Lecouvreux, Océane Boidard, Grégoire Méry, Jérôme Silvestre, Gaël Le Roux, David Baqué, Arnaud Elger, Andrew B. Barron, Mathieu Lihoreau, Jean-Marc Devaud

Published in: Chemosphere, 2022, ISSN 0045-6535

Publisher: Pergamon Press Ltd.

DOI: 10.1016/j.chemosphere.2022.134089

[The gut parasite Nosema ceranae impairs olfactory learning in bumblebees](#) 

Author(s): Gomez-Moracho T, Durand T, Lihoreau M

Published in: Journal of Experimental Biology, 2022, ISSN 0022-0949

Publisher: The Company of Biologists Ltd.

DOI: 10.1242/jeb.244340

[A comparative analysis of foraging route development by bumblebees and honey bees](#) 

Author(s): Alexis Buatois, Juliane Mailly, Thibault Dubois, Mathieu Lihoreau

Published in: Behavioral Ecology and Sociobiology, 2024, ISSN 0340-5443

Publisher: Springer Verlag

DOI: 10.1007/s00265-023-03422-7

[Nutrignometry I: Using Right-Angle Triangles to Quantify Nutritional Trade-Offs in Performance Landscapes](#) 

Author(s): Morimoto J, Conceição P, Mirth C, Lihoreau M

Published in: The American Naturalist, 2023, ISSN 0003-0147

Publisher: University of Chicago Press

DOI: 10.1086/723599

[Supplementation in vitamin B3 counteracts the negative effects of tryptophan deficiencies in bumble bees](#) 

Author(s): M.L Tissier; S. Kraus; T. Gómez-Moracho; M. Lihoreau

Published in: Conservation Physiology, 2023, ISSN 2051-1434

Publisher: Oxford University Press

DOI: 10.1101/2022.06.21.497066

[Modeling bee movement shows how a perceptual masking effect can influence flower discovery](#)

Author(s): Ana Morán; Mathieu Lihoreau; Alfonso Pérez Escudero; Jacques Gautrais

Published in: PLoS Computational Biology, 2023, ISSN 1553-7358

Publisher: PLOS

DOI: 10.1371/journal.pcbi.1010558

[Patterns of food transfer in yellow-legged hornet nests revealed by heavy metal tracers](#)

Author(s): Poidatz K, Lihoreau M, Thiery D

Published in: Entomologia Generalis, 2022, ISSN 0171-8177

Publisher: E. Schweizerbart'sche Verlagsbuchhandlung

DOI: 10.1127/entomologia/2022/1339

[What is really social in social insect cognition?](#)

Author(s): Poissonnier LA, Tait C, Lihoreau M

Published in: Frontiers in Ecology and Evolution, 2022, ISSN 1664-3224

Publisher: Frontiers

DOI: 10.3389/fevo.2022.1001045

[Editorial: Neuroethology of the colonial mind: Ecological and evolutionary context of social brains](#)

Author(s): Kamhi JF, Lihoreau M, Arganda S

Published in: Frontiers in Ecology and Evolution, 2022, ISSN 1664-3224

Publisher: Frontiers

DOI: 10.3389/fevo.2022.1058611

[Flexible visual learning in nectar-foraging hornets](#)

Author(s): Mathilde Lacombrade, Monica Doblas-Bajo, Naïs Rocher, Zoé Tourrain, Emmanuel Navarro, Christian Lubat, Fanny Vogelweith, Denis Thiéry, Mathieu Lihoreau

Published in: Behavioral Ecology and Sociobiology, 2023, ISSN 0340-5443

Publisher: Springer Verlag

DOI: 10.1007/s00265-023-03349-z

[Considering variation in bee responses to stressors can reveal potential for resilience](#)

Author(s): Amélie Cabirol, Tamara Gómez-Moracho, Coline Monchanin, Cristian Pasquaretta, Mathieu Lihoreau

Published in: Journal of Applied Ecology, 2023, ISSN 1365-2664

Publisher: British Ecological Society

DOI: 10.1111/1365-2664.14414

[A Non-Invasive Millimetre-Wave Radar Sensor for Automated Behavioural Tracking in Precision Farming—Application to Sheep Husbandry](#)

Author(s): Alexandre Dore; Cristian Pasquaretta; Dominique Henry; Edmond Ricard; Jean-François Bompa; Mathieu Bonneau; Alain Boissy; Dominique Hazard; Mathieu Lihoreau; Hervé Aubert

Published in: Sensors, 2021, ISSN 1424-8220

Publisher: Multidisciplinary Digital Publishing Institute (MDPI)

DOI: 10.3390/s21238140

[Natural variability in bee brain size and symmetry revealed by micro-CT imaging and deep learning](#)

Author(s): Philipp D. Lösel; Coline Monchanin; Renaud Lebrun; Alejandra Jayme; Jacob J. Relle; Jean-Marc Devaud; Vincent Heuveline; Mathieu Lihoreau

Published in: PLoS Computational Biology, 2023, ISSN 1553-7358

Publisher: PLoS

DOI: 10.1371/journal.pcbi.1011529

[Environmental exposure to metallic pollution impairs honey bee brain development and cognition](#)

Author(s): Coline Monchanin, Erwann Drujont, Gaël Le Roux, Philipp D. Lösel, Andrew B. Barron, Jean-Marc Devaud, Arnaud Elger, Mathieu Lihoreau

Published in: Journal of Hazardous Materials, 2024, ISSN 0304-3894

Publisher: Elsevier BV

DOI: 10.1016/j.jhazmat.2023.133218

Book chapters (5)

[Energetics of foraging](#)

Author(s): Catherine Tait, Mathieu Lihoreau

Published in: 2024

Publisher: Elsevier

DOI: 10.1016/b978-0-323-91793-3.00008-0

[Navigation: Cognition, learning, and memory](#)

Author(s): Charlotte Doussot, John Purdy, Mathieu Lihoreau

Published in: 2023

Publisher: Elsevier

DOI: 10.1016/b978-0-323-91793-3.00007-9

Where, What and With Whom to Eat: Towards an integrative study of foraging behaviour

Author(s): Mathieu Lihoreau, Tamara Gómez-Moracho

Published in: 2022, ISBN 9781003091868

Publisher: Taylor & Francis

[Navigation by Honey Bees](#) 

Author(s): Naïla Even, Olivier Bertrand, Mathieu Lihoreau

Published in: Encyclopedia of Animal Cognition and Behavior, 2022

Publisher: Springer

DOI: 10.1007/978-3-319-55065-7_623

[Traveling Salesman](#) 

Author(s): Mathieu Lihoreau, Tamara Gómez-Moracho, Cristian Pasquaretta

Published in: Encyclopedia of Animal Cognition and Behavior, 2022, ISBN 978-3-319-55064-0

Publisher: Springer

DOI: 10.1007/978-3-319-55065-7_1821

Non-peer reviewed articles (2)

[How do bees move across the landscapes?](#) 

Author(s): Dore A, Henry D, Aubert H, Lihoreau M

Published in: The Project Repository Journal, 2022, ISSN 2632-4067

Publisher: European Dissemination Media Agency

DOI: 10.54050/prj1218299

[Modelling bee movements to improve pollination](#) 

Author(s): Juliane Mailly, Joanna Brebner, Charlotte Doussot, Louise Riotte-Lambert, Mathieu Lihoreau

Published in: The Project Repository Journal, 2024, Page(s) 24-27, ISSN 2632-4067

Publisher: European Agency media

DOI: 10.54050/prj1921089

Conference proceedings (1)

[3D Tracking of Small Moving Targets in Cluttered Environment from the Isolines Processing of Millimeter-wave Radar Images](#) 

Author(s): E. Dedic; A. Hadj Djilani; D. Henry; M. Lihoreau; H. Aubert

Published in: EEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting (USNC-URSI), 2023

Publisher: IEEE

DOI: 10.1109/usnc-ursi52151.2023.10237829

[Automated detection of sow posture changes with millimeter-wave radars and deep learning](#)

Author(s): Dore, Alexandre; Mathieu, Lihoreau; Bailly, Jean; Billon, Yvon; Bompas, Jean-François; Ricard, Edmond; Henry, Dominique; Canario, Laurianne; Aubert, Hervé

Published in: BioRxiv, Issue 1, 2022

Publisher: BioRxiv

DOI: 10.1101/2022.04.13.488188

[Switching perspective: Comparing ground-level and bird's-eye views for bees navigating clutter](#)

Author(s): Annkathrin Sonntag, Odile Sauzet, Mathieu Lihoreau, Martin Egelhaaf, Olivier Bertrand

Published in: BioRxiv, 2023

Publisher: BioRxiv

DOI: 10.1101/2023.12.21.572344

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