

Selected Publications

Books

La Vie des Fourmis. 2013. L. Keller & E. Gordon, Odile Jacob, Paris, 303 pp. (Paperback version of the book published in 2006).

The Lives of Ants. 2009. L. Keller & E. Gordon, Oxford University Press, 252 pp. (Paperback version published in 2010).

Edited Books

Levels of Selection in Evolution. 1999. L. Keller (ed.), Princeton University Press, Princeton, 318 pp.

Queen Number and Sociality in Insects. 1993. L. Keller (ed.), Oxford University Press, Oxford, 439 pp.

Research Articles (selected from >400 articles in peer Reviewed Journals)

Dai, W., Lu, L., Qui, H., Zhong, J., Ling, S., Xu, J., Keller, L. & Zheng, Y. In press. Targeted cannibalism of queens mediated by worker signals in fire ants. ***Current Biology***.

Genzoni, E., Schwander, T. & Keller, L. 2025. Trophic eggs affect caste determination in the ant *Pogonomyrmex rugosus*. ***eLife*** 12, RP86899.

Frank, E. T., Buffat, D., Liberti, J., Aibekova, L., Economo, E. P. & Keller, L. 2024. Wound-dependent leg amputations to combat infections in an ant society. ***Current Biology***, 34, 3273 – 3278.

Darras, H., Berney, C., Hasin, S., Drescher, J., Feldhaar, H. & Keller, L. 2023. Obligate chimerism in male yellow crazy ants. ***Science***, 380, 55–58.

Kay, T., Liberti, J., Richardson, T. O., McKenzie, S. K., Weitekamp, C. A., La Mendola, C., Rüegg, M., Kesner, L., Szombathy, N., McGregor, S., Romiguier, J., Engel, P. & Keller, L. 2023. Social network position is a major predictor of ant behaviour, microbiota composition and brain gene expression. ***Plos Biology***, 10, 7 10.1371/journal.pbio.3002203.

Koto, A., Tamura, M., Wong, P. S., Wong P. S., Abutani, S., Privman, E., Stoffel, C., Crespi, A., McKenzie, S. K., La Mendola, C., Kay, T. & Keller, L. 2023. Social isolation shortens lifespan through oxidative stress in ants. ***Nature Communications*** 14, 5493 (2023). <https://doi.org/10.1038/s41467-023-41140-w>.

Frank, E. T., Kesner, L., Liberti, J., Helleu, Q., LeBoeuf, A. C., Dascalu, A., Sponsler, D. B., Azuma, F., Economo, E. P., Waridel, P., Engel, P., Schmitt, T. & Keller, L. 2023. Targeted treatment of injured nestmates with antimicrobial compounds in an ant society. ***Nature Communications*** (2023) 14:8446. <https://doi.org/10.1038/s41467-023-43885-w>.

Montazeau, G., Helleu, Q., Wuest, S. E. & Keller, L. 2023. Indirect genetic effects are shaped by demographic history and ecology in *Arabidopsis thaliana*. ***Nature Ecology & Evolution***. <https://doi.org/10.1038/s41559-023-02189-4>.

Helleu, Q., Ross, K.G. & Keller, L. 2022. Radiation and hybridization underpin the spread of the fire ant social supergene. ***Proceedings of the National Academy of Sciences, USA***, 119, e2201040119.

Liberti, J., Kay, T., Quinn, A., Kesner, L., Frank, E., Cabirol, A., Richardson, T. O., Engel, P. & Keller, L. In press. The gut microbiota affects the social network of honeybees. ***Nature Ecology & Evolution***, 6, 1471-1479.

Romiguier, J., Borowiec, M. L., Weyna, A., Helleu, Q., Loire, E., La Mendola, C., Rabeling, C., Fisher, B. L., Ward, P. S. & Keller, L. In press. Ant phylogenomics reveals a natural selection hotspot preceding the origin of advanced eusociality. ***Current Biology***, 32, 2942–2947

Richardson, T. O., Kay, T., Braunschweig, R., Journeau, O. A., Rüegg, M., McGregor, S., De Los Rios, P. & Keller, L. 2021. Ant behavioural maturation is mediated by a stochastic transition between two fundamental states. ***Current Biology***, 31, 2253-2260.

Kay, T., Keller, L. & Lehmann, L. 2020. The evolution of altruism and the serial rediscovery of the role of relatedness. ***Proceedings of the National Academy of Sciences, USA***, 117, 28894–28898,

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Review articles

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