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## Research outputs

### **Thermoregulation and diurnal roost selection of boreal bats during pre-hibernation period**

Suominen, K. M., Fritzén, N. R., Fjellidal, M. A., Blomberg, A. S., Viljamaa, M. J. K. & Lilley, T. M., Mar 2025, In: *Oikos*. 2025, 3, 11 p., e10827.

### **A Palearctic view of a bat fungal disease**

Whiting-Fawcett, F., Blomberg, A. S., Troitsky, T. S., Meierhofer, M., Field, K., Puechmaille, S. & Lilley, T. M., Feb 2025, In: *Conservation Biology*. 39, 1, 15 p., e14265.

### **Contrasting Seasonal Distribution Patterns of Two Boreal Aerial Hawking Bat Species in Finland**

Lundberg, P., Kotila, M., Meramo, K., Suominen, K. M., Suutari, M., Pietikäinen, T. M., Vasko, V. & Lilley, T. M., 16 Jan 2025, In: *Ecology and Evolution*. 15, 1, 12 p., e70599.

### **Tree-volume and forest age increase bat species diversity in boreal urban landscape**

Meramo, K., Vasko, V. V. W., Pietikäinen, T.-M., Laine, V., Ovaskainen, O. & Lilley, T. M., 13 Jan 2025, In: *Landscape Ecology*. 40, 1, 18 p., 23.

### **EU needs groundwater ecosystems guidelines**

Di Lorenzo, T., Lunghi, E., Aanei, C., Altermatt, F., Alther, R., Amorim, I. R., Băncilă, R. I., Bellvert, A., Blomberg, A., Borges, P. A. V., Brad, T., Brancelj, A., Brankovits, D., Cardoso, P., Cerasoli, F., Chauveau, C. A., Crespo, L., Csader, M., Delić, T. & Di Cicco, M. & 41 others, Douady, C. J., Duchemin, L., Faille, A., Fiasca, B., Fišer, C., Flot, J. F., Gabriel, R., Galassi, D. M. P., Garzoli, L., Griebler, C., Karwautz, C., Kenesz, M. I., Konecny-Dupré, L., Lilley, T., Malard, F., Martínez, A., Meierhofer, M. B., Messana, G., Millán, A., Mizerakis, V., Mori, N., Nanni, V., Nicolosi, G., Oromí, P., Pallarés, S., Pereira, F., Reboleira, A. S. P. S., Saccò, M., Salussolia, A., Sánchez-Fernández, D., Sarbu, S. M., S Tefan, A., Stoch, F., Di Camillo, A. T., Taiti, S., Vaccarelli, I., Valanne, V., Zigmajster, M., Zakšek, V., Zittra, C. & Mammola, S., 5 Dec 2024, In: *Science (New York, N.Y.)*. 386, 6726, p. 1103 1 p.

### **Antipredator responses of bats during short boreal nights with variable climatic conditions**

Suutari, M. S., Lehtikoinen, A., Lehto, H. J. & Lilley, T. M., 29 Oct 2024, In: *Journal of Mammalogy*. 9 p., gyae124.

### **Supersize me: hypotheses on torpor-assisted prehibernation fattening in a boreal bat**

Fjellidal, M. A., Fritzén, N. R., Suominen, K. M. & Lilley, T. M., 18 Sept 2024, In: *Biology Letters*. 20, 9, 7 p., 20240291.

### **Signals of positive selection in genomes of palearctic *Myotis*-bats coexisting with a fungal pathogen**

Twort, V. G., Laine, V., Field, K. A., Whiting-Fawcett, F., Ito dos Santos, F., Reiman, M. O., Bartonicka, T., Fritze, M., Ilyukha, V., Belkin, V., Khizhkin, E., Reeder, D., Fukui, D., Jiang, T. L. & Lilley, T. M., 3 Sept 2024, In: *BMC Genomics*. 25, 1, 16 p., 828.

### **Slow-lived birds and bats carry higher pathogen loads**

Xu, Y., Laine, V., Meramo, K., Santangeli, A., Poosakkannu, A., Suominen, K. M., Gaultier, S., Keller, V., Brotons, L., Pulliainen, A. T., Lilley, T. M. & Lehikoinen, A., 21 Jun 2024, In: *One Earth*. 7, 6, p. 1121-1132 13 p.

### **Re-weighing the 5% tagging recommendation: assessing the potential impacts of tags on the behaviour and body condition of bats**

Meierhofer, M., Tena, E., Lilley, T. M., Dechmann, D. K. N., Voigt, C. C., Troitsky, T. S., de Bruyn, L., Braun de Torrez, E., Eldegard, K., Elmeros, M., Gyselings, R., Hoyt, D., Janssen, R., Jonasson, K. A., López-Baucells, A., Matlova, M., Melber, M., Perea, S., Stidsholt, L. & Valanne, V. I. & 3 others, George Varghese, M., Zavattoni, G. & Weller, T. J., Jun 2024, In: *Mammal Review*. 13 p.

### **Restoration of boreal wetlands increases bat activity**

Vasko, V., Gaultier, S., Blomberg, A. S., Lilley, T. M., Norrdahl, K. & Brommer, J. E., May 2024, In: *Restoration Ecology*. 32, 4, 8 p., e14099.

### **Effective conservation of subterranean-roosting bats**

Meierhofer, M., Johnson, J. S., Perez-Jimenez, J., Ito dos Santos, F., Webela, P. W., Wiantoro, S., Bernard, E., Tanalgo, K. C., Hughes, A. C., Cardoso, P., Lilley, T. M. & Mammola, S., Feb 2024, In: *Conservation Biology*. 38, 1, 13 p., e14157.

### **Reference genome for the Northern bat (*Eptesicus nilssonii*), a most northern bat species**

Laine, V. N., Pulliainen, A. T. & Lilley, T. M., Jan 2024, In: *Journal of Heredity*. 115, 1, p. 149–154 6 p., esad056.

### **When the host's away, the pathogen will play: the protective role of the skin microbiome during hibernation**

Troitsky, T. S., Laine, V. & Lilley, T. M., 21 Dec 2023, In: *Animal microbiome*. 5, 11 p., 66.

### **Continental-scale climatic gradients of pathogenic microbial taxa in birds and bats**

Xu, Y., Poosakkannu, A., Suominen, K. M., Laine, V. N., Lilley, T. M., Pulliainen, A. T. & Lehikoinen, A., Dec 2023, In: *Ecography*. 2023, 12, 11 p., e06783.

### **Not invasive status but plant overstory matters: open shrub canopies support greater plant and arthropod diversity and more complex food web structures compared to shady tree canopies**

Lanta, V., Lilley, T. M., Rinne, V., Čížek, L., Doležal, J. & Norrdahl, K., Dec 2023, In: *Arthropod - Plant Interactions*. 17, 6, p. 863–889 27 p.

### **Role of vernal pools in activity and diversity of bats and birds linked with the emergence of flying insects**

Marteau, B., Nummi, P., Lilley, T. M. & Sundell, J., Dec 2023, In: *Global Ecology and Conservation*. 48, 12 p., e02722.

### **Environmental control reduces white-nose syndrome infection in hibernating bats**

Sewall, B. J., Turner, G. G., Scafani, M. R., Gagnon, M. F., Johnson, J. S., Keel, M. K., Anis, E., Lilley, T. M., White, J. P., Hauer, C. L. & Overton, B. E., Oct 2023, In: *Animal Conservation*. 26, 5, p. 642-653 12 p.

### **Environmental features around roost sites drive species-specific roost preferences for boreal bats**

Suominen, K. M., Vesterinen, E. J., Kivistö, I., Reiman, M. O., Virtanen, T., Meierhofer, M. B., Vasko, V., Sironen, T. & Lilley, T. M., Oct 2023, In: *Global Ecology and Conservation*. 46, 12 p., e02589.

### **Large-scale long-term passive-acoustic monitoring reveals spatio-temporal activity patterns of boreal bats**

Kotila, M., Suominen, K. M., Vasko, V. V., Blomberg, A. S., Lehikoinen, A., Andersson, T., Aspi, J., Cederberg, T., Hänninen, J., Inkinen, J., Koskinen, J., Lundberg, G. M., Mäkinen, K., Rontti, M., Snickars, M., Solbakken, J. S., Sundell, J., Syvänperä, I., Vuorenmaa, S. K. & Ylönen, J. & 2 others, Vesterinen, E. J. & Lilley, T. M., Jun 2023, In: *Ecography*. 2023, 6, 12 p., e06617.

### **The presence of wind turbines repels bats in boreal forests**

Gaultier, S. P., Lilley, T. M., Vesterinen, E. J. & Brommer, J. E., Mar 2023, In: *Landscape and Urban Planning*. 231, 11 p., 104636.

**Whole-genome analysis reveals contrasting relationships among nuclear and mitochondrial genomes between three sympatric bat species**

Laine, V., Sävilammi, T., Wahlberg, N., Meramo, K., Ossa, G., Johnson, J. S., Blomberg, A. S., Yeszhanov, A. B., Yung, V., Paterson, S. & Lilley, T. M., 4 Jan 2023, In: *Genome Biology and Evolution*. 15, 1, 12 p., evac175.

**Northern Bat *Eptesicus nilssonii* (Keyserling and Blasius, 1839)**

Suominen, K. M., Kotila, M., Blomberg, A. S., Pihlström, H., Ilyukha, V. & Lilley, T. M., 8 Dec 2022, *Handbook of the mammals of Europe*. Hackländer, K. & Zacos, F. E. (eds.). Springer, p. 1-27 27 p.

**High genetic connectivity among large populations of *Pteronotus gymnotus* in bat caves in Brazil and its implications for conservation**

Ito, F., Lilley, T., Twort, V. G. G. & Bernard, E., 5 Oct 2022, In: *Frontiers in Ecology and Evolution*. 10, 11 p., 934633.

**Atmospheric humidity affects global variation of bat echolocation via indirect effects**

Kotila, M., Helle, S., Lehto, H., Rojas, D., Vesterinen, E. J. & Lilley, T. M., 6 Sept 2022, In: *Frontiers in Ecology and Evolution*. 10, 12 p., 934876.

**The promise and perils of engineering cave climates: Response to Turner et al.**

Meierhofer, M. B., Cardoso, P., Lilley, T. & Mammola, S., Jun 2022, In: *Conservation Biology*. 36, 3, 3 p., e13927.

**Cooling of bat hibernacula to mitigate white-nose syndrome**

Turner, G. G., Sewall, B. J., Scafani, M. R., Lilley, T. M., Bitz, D. & Johnson, J. S., Apr 2022, In: *Conservation Biology*. 36, 2, 11 p., e13803.

**Contrasting Effects of Chronic Anthropogenic Disturbance on Activity and Species Richness of Insectivorous Bats in Neotropical Dry Forest**

Meramo, K., Ovaskainen, O., Bernard, E., Rodrigues Silva, C., Laine, V. & Lilley, T. M., 17 Feb 2022, In: *Frontiers in Ecology and Evolution*. 10, 13 p., 822415.

**Next-generation ultrasonic recorders facilitate effective bat activity and distribution monitoring by citizen scientists**

Lundberg, P., Meierhofer, M., Vasko, V. V. W., Suutari, M. S., Ojala, A., Vainio, A. & Lilley, T. M., 10 Dec 2021, In: *Ecosphere*. 12, 12, 10 p., 03866.

**Winter activity of boreal bats**

Blomberg, A. S., Vasko, V., Meierhofer, M. B., Johnson, J. S., Eeva, T. & Lilley, T. M., Oct 2021, In: *Mammalian Biology*. 101, 5, p. 609-618 10 p.

**A conservation roadmap for the subterranean biome**

Wynne, J. J., Howarth, F. G., Mammola, S., Ferreira, R. L., Cardoso, P., Di Lorenzo, T., Galassi, D. M. P., Medellín, R. A., Miller, B. W., Sanchez-Fernandez, D., Bichuette, M. E., Biswas, J., BlackEagle, C. W., Boonyanusith, C., Amorim, I. R., Vieira Borges, P. A., Boston, P. J., Cal, R. N., Cheeptham, N. & Deharveng, L. & 36 others, Eme, D., Faille, A., Fenolio, D., Fiser, C., Fiser, Z., Gon, S. M. O., Goudarzi, F., Griebler, C., Halse, S., Hoch, H., Kale, E., Katz, A. D., Kovac, L., Lilley, T. M., Manchi, S., Manenti, R., Martinez, A., Meierhofer, M. B., Miller, A. Z., Moldovan, O. T., Niemiller, M. L., Peck, S. B., Pellegrini, T. G., Pipan, T., Phillips-Lander, C. M., Poot, C., Racey, P. A., Sendra, A., Shear, W. A., Silva, M. S., Taiti, S., Tian, M., Venarsky, M. P., Yancovic Pakarati, S., Zagmajster, M. & Zhao, Y., Sept 2021, In: *Conservation Letters*. 14, 5, 6 p., 12834.

**Heterothermy and antifungal responses in bats**

Whiting-Fawcett, F., Field, K., Puechmaille, S. J., Blomberg, A. & Lilley, T. M., Aug 2021, In: *Current Opinion in Microbiology*. 62, p. 61-67 7 p.

**Disease Avoidance Model Explains the Acceptance of Cohabitation With Bats During the COVID-19 Pandemic**

Lundberg, P., Ojala, A., Suominen, K. M., Lilley, T. M. & Vainio, A., 16 Jul 2021, In: *Frontiers in Psychology*. 12, 9 p., 635874.

**Ten-year projection of white-nose syndrome disease dynamics at the southern leading-edge of infection in North America**  
Meierhofer, M., Lilley, T. M., Ruokolainen, L., Johnson, J., Parratt, S., Morrison, M., Pearce, B., Evans, J. & Anttila, J., 9 Jun 2021, In: Proceedings of the Royal Society B. Biological Sciences. 288, 1952, 9 p., 20210719.

**No Sign of Infection in Free-ranging *Myotis austroriparius* Hibernating in the Presence of *Pseudogymnoascus destructans* in Alabama**

Johnson, J. S., Sharp, N. W., Monarchino, M. N., Lilley, T. M. & Edelman, A. J., Mar 2021, In: Southeastern Naturalist. 20, 1, p. 20-28 9 p.

**The Winter Worries of Bats: Past and Present Perspectives on Winter Habitat and Management of Cave Hibernating Bats**

Johnson, J. S., Blomberg, A. S., Boyles, J. G. & Lilley, T. M., 24 Jan 2021, *50 Years of Bat Research: Foundations and New Frontiers*. Lim, B. K., Fenton, M. B., Brigham, R. M., Mistry, S., Kurta, A., Gillam, E. H., Russell, A. & Ortega, J. (eds.). Cham: Springer Nature Switzerland AG, p. 209-221 13 p. (Fascinating Life Sciences).

**First record of a *Nathusius' pipistrelle* (*Pipistrellus nathusii*) overwintering at a latitude above 60°N**

Blomberg, A. S., Vasko, V., Salonen, S., Petersons, G. & Lilley, T. M., Jan 2021, In: Mammalia : international journal of the systematics, biology and ecology of mammals. 85, 1, p. 74-78 5 p.

**Fundamental research questions in subterranean biology**

Mammola, S., Amorim, I. R., Bichuette, M. E., Borges, P. A. V., Cheeptham, N., Cooper, S. J. B., Culver, D. C., Deharveng, L., Eme, D., Ferreira, R. L., Fiser, C., Fiser, Z., Fong, D. W., Griebler, C., Jeffery, W. R., Jugovic, J., Kowalko, J. E., Lilley, T. M., Malard, F. & Manenti, R. & 12 others, Martinez, A., Meierhofer, M. B., Niemiller, M. L., Northup, D. E., Pellegrini, T. G., Pipan, T., Protas, M., Reboleira, A. S. P. S., Venarsky, M. P., Wynne, J. J., Zagmajster, M. & Cardoso, P., Dec 2020, In: Biological Reviews. 95, 6, p. 1855-1872 18 p.

**Roosting ecology of the southernmost bats, *Myotis chiloensis* and *Histiotus magellanicus*, in southern Tierra del Fuego, Chile**

Ossa, G., Lilley, T. M., Waag, A., Meierhofer, M. & Johnson, J., Dec 2020, In: Austral Ecology. 45, 8, p. 1169-1178 10 p.

**A global class reunion with multiple groups feasting on the declining insect smorgasbord**

Vesterinen, E. J., Kaunisto, K. M. & Lilley, T. M., 6 Oct 2020, In: Scientific Reports. 10, 1, 7 p., 16595.

**Bats and Wind Farms: The Role and Importance of the Baltic Sea Countries in the European Context of Power Transition and Biodiversity Conservation**

Gaultier, S., Blomberg, A., Ijäs, A., Vasko, V. V. W., Vesterinen, E., Brommer, J. E. & Lilley, T. M., 24 Aug 2020, In: Environmental Science & Technology. 54, 17, p. 10385-10398 14 p.

**Genome-wide changes in genetic diversity in a population of *Myotis lucifugus* affected by white-nose syndrome**

Lilley, T. M., Wilson, I. W., Field, K. A., Reeder, D. M., Vodzak, M. E., Turner, G. G., Kurta, A., Blomberg, A. S., Hoff, S., Herzog, C., Sewall, B. J. & Paterson, S., Jun 2020, In: G3 - Genes genomes genetics. 10, 6, p. 2007-2020 14 p.

**Population connectivity predicts vulnerability to white-nose syndrome in the Chilean myotis (*Myotis chiloensis*) - A genomics approach**

Lilley, T. M., Sävilammi, T., Ossa, G., Blomberg, A. S., Vasemägi, A., Yung, V., Vendrami, D. L. J. & Johnson, J. S., Jun 2020, In: G3 - Genes genomes genetics. 10, 6, p. 2117-2126 10 p.

**Threats from the air: damselfly predation on diverse prey taxa**

Kaunisto, K. M., Roslin, T., Forbes, M., Morrill, A., Sääksjärvi, I. E., Puisto, A., Lilley, T. & Vesterinen, E., Jun 2020, In: Journal of Animal Ecology. 89, 6, p. 1365-1374 10 p.

**Within-season changes in habitat use of forest-dwelling boreal bats**

Vasko, V., Blomberg, A. S., Vesterinen, E. J., Suominen, K. M., Ruokolainen, L., Brommer, J. E., Norrdahl, K., Niemelä, P., Laine, V. N., Santangeli, A. & Lilley, T. M., May 2020, In: Ecology and Evolution. 10, 9, p. 4164-4174 11 p.

### **First Report of Coronaviruses in Northern European Bats**

Kivisto, I., Tidenberg, E.-M., Lilley, T., Suominen, K., Forbes, K. M., Vapalahti, O., Huovilainen, A. & Sironen, T., 1 Feb 2020, In: Vector Borne and Zoonotic Diseases. 20, 2, p. 155-158 4 p.

### **Optimal hibernation theory**

Boyles, J. G., Johnson, J. S., Blomberg, A. & Lilley, T. M., Jan 2020, In: Mammal Review. 50, 1, p. 91-100 10 p.

### **Lepakon vuosi**

Rönkä, M., Lilley, T. M. & Sarell, N. (Illustrator), 2020, Turku: Sammakko. 32 p.

### **Lukiolaiset keräsivät tutkijoille huikean määrän lepakkohavaintoja**

Lundberg, P. & Lilley, T. M., 20 Dec 2019, In: Natura. 56, 4, p. 11 1 p.

### **Resistance is futile: RNA-sequencing reveals differing responses to bat fungal pathogen in Nearctic *Myotis lucifugus* and Palearctic *Myotis myotis***

Lilley, T. M., Prokkola, J. M., Blomberg, A. S., Paterson, S., Johnson, J. S., Turner, G. G., Bartonička, T., Bachorec, E., Reeder, D. M. & Field, K. A., Oct 2019, In: Oecologia. 191, 2, p. 295-309 15 p.

### **Lepakkotiedeprojekti lukioluokille**

Lundberg, P. K., Suominen, K. M. & Lilley, T. M., 22 Mar 2019, In: Natura. 56, 1, p. 11 1 p.

### **Metal and metalloid exposure and oxidative status in free-living individuals of *Myotis daubentonii***

Ruiz, S. R., Eeva, T., Kanerva, M., Blomberg, A. & Lilley, T. M., Mar 2019, In: Ecotoxicology and Environmental Safety. 169, p. 93-102 10 p.

### **The Klingon batbugs: Morphological adaptations in the primitive bat bugs, *Bucimex chilensis* and *Primicimex cavernis*, including updated phylogeny of Cimicidae**

Ossa, G., Johnson, J. S., Puisto, A. I. E., Rinne, V., Sääksjärvi, I. E., Waag, A., Vesterinen, E. J. & Lilley, T. M., Feb 2019, In: Ecology and Evolution. 9, 4, p. 1736-1749 14 p.

### **Landscape structure and ecology influence the spread of a bat fungal disease**

Lilley, T. M., Anttila, J. V. & Ruokolainen, L., Nov 2018, In: Functional Ecology. 32, 11, p. 2483-2496 14 p.

### **Table for five, please: Dietary partitioning in boreal bats**

Vesterinen, E. J., Puisto, A., Blomberg, A. & Lilley, T. M., Nov 2018, In: Ecology and Evolution. 8, 22, p. 10914-10937 24 p.

### **Tulimaan kevättyössä: Chilen Tulimaassa elävät maailman eteläisimmät lepakot.**

Lilley, T. M., Nov 2018, In: Suomen luonto. 18, 9, p. 60-64 5 p.

### **Effect of torpor on host transcriptomic responses to a fungal pathogen in hibernating bats**

Field, K. A., Sewall, B. J., Prokkola, J. M., Turner, G. G., Gagnon, M. F., Lilley, T. M., White, J. P., Johnson, J. S., Hauer, C. L. & Reeder, D. M., Sept 2018, In: Molecular Ecology. 27, 18, p. 3727-3743 17 p.

### **Energy conserving thermoregulatory patterns and lower disease severity in a bat resistant to the impacts of white-nose syndrome**

Moore, M. S., Field, K. A., Behr, M. J., Turner, G. G., Furze, M. E., Stern, D. W. F., Allegra, P. R., Bouboulis, S. A., Musante, C. D., Vodzak, M. E., Biron, M. E., Meierhofer, M. B., Frick, W. F., Foster, J. T., Howell, D., Kath, J. A., Kurta, A., Nordquist, G., Johnson, J. S. & Lilley, T. M. & 2 others, Barrett, B. W. & Reeder, D. M., Jan 2018, In: Journal of comparative physiology. B, Biochemical, systems, and environmental physiology. 188, 1, p. 163-176 14 p.

### **First record of *Promops davisoni* (Thomas, 1921) (chiroptera, molossidae) from Chile and a description of its echolocation calls**

Ossa, G., Lilley, T. M., Ugarte-Núñez, J., Ruokolainen, L., Vilches, K., Valladares-Faúndez, P. & Yung, V., 2018, In: *Mastozoología neotropical*. 25, 1, p. 129-137 9 p.

Oxidative status in relation to metal pollution and calcium availability in pied flycatcher nestlings - A calcium manipulation experiment  
Espin, S., Ruiz, S., Sanchez-Virosta, P., Lilley, T. & Eeva, T., Oct 2017, In: *Environmental Pollution*. 229, p. 448-458 11 p.

**Evidence of the migratory bat, *Pipistrellus nathusii*, aggregating to the coastlines in the Northern Baltic Sea**  
Ijas, A., Kahilainen, A., Vasko, V. V. & Lilley, T. M., Jun 2017, In: *Acta Chiropterologica*. 19, 1, p. 127-139 13 p.

#### **Molecular Detection of *Candidatus Bartonella mayotimonensis* in North American Bats**

Lilley, T. M., Wilson, C. A., Bernard, R. F., Willcox, E. V., Vesterinen, E. J., Webber, Q. M. R., Kurpiers, L., Prokkola, J. M., Ejotre, I., Kurta, A., Field, K. A., Reeder, D. M. & Pulliainen, A. T., Apr 2017, In: *Vector Borne and Zoonotic Diseases*. 17, 4, p. 243-246 4 p.

Vitamin profiles in two free-living passerine birds under a metal pollution gradient A calcium supplementation experiment  
Ruiz, S. R., Espin, S., Sanchez-Virosta, P., Salminen, J.-P., Lilley, T. M. & Eeva, T., Apr 2017, In: *Ecotoxicology and Environmental Safety*. 138, p. 242-252 11 p.

#### **Molecular Evidence of *Chlamydia*-Like Organisms in the Feces of *Myotis daubentonii* Bats**

Hokynar, K., Vesterinen, E. J., Lilley, T. M., Pulliainen, A. T., Korhonen, S. J., Paavonen, J. & Puolakkainen, M., Jan 2017, In: *Applied and Environmental Microbiology*. 83, 2, 8 p., 02951.

*Pseudogymnoascus destructans* transcriptome changes during white-nose syndrome infections  
Reeder, S. M., Palmer, J. M., Prokkola, J. M., Lilley, T. M., Reeder, D. M. & Field, K. A., 2017, In: *Virulence*. 8, 8, p. 1695-1707 13 p.

Effects of dietary lead exposure on vitamin levels in great tit nestlings - An experimental manipulation  
Ruiz, S. R., Espin, S., Rainio, M., Ruuskanen, S., Salminen, J.-P., Lilley, T. M. & Eeva, T., Jun 2016, In: *Environmental Pollution*. 213, p. 688-697 10 p.

#### **What you need is what you eat? Prey selection by the bat *Myotis daubentonii***

Vesterinen, E. J., Ruokolainen, L., Wahlberg, N., Pena, C., Roslin, T., Laine, V. N., Vasko, V., Sääksjarvi, I. E., Norrdahl, K. & Lilley, T. M., Apr 2016, In: *Molecular Ecology*. 25, 7, p. 1581-1594 14 p.

#### **White-nose syndrome survivors do not exhibit frequent arousals associated with *Pseudogymnoascus destructans* infection**

Lilley, T. M., Johnson, J. S., Ruokolainen, L., Rogers, E. J., Wilson, C. A., Schell, S. M., Field, K. A. & Reeder, D. M., 3 Mar 2016, In: *Frontiers in Zoology*. 13, 8 p., 12.

#### **Molecular Detection of *Candidatus Bartonella hemsundetiensis* in Bats**

Lilley, T. M., Veikkolainen, V. & Pulliainen, A. T., 1 Nov 2015, In: *Vector Borne and Zoonotic Diseases*. 15, 11, p. 706-708 3 p.

The White-Nose Syndrome Transcriptome: Activation of Anti-fungal Host Responses in Wing Tissue of Hibernating Little Brown *Myotis*

Field, K. A., Johnson, J. S., Lilley, T. M., Reeder, S. M., Rogers, E. J., Behr, M. J. & Reeder, D. M., Oct 2015, In: *PLoS Pathogens*. 11, 10, 29 p., 1005168.

Antibodies to *Pseudogymnoascus destructans* are not sufficient for protection against white-nose syndrome

Johnson, J. S., Reeder, D. M., Lilley, T. M., Czirjak, G. A., Voigt, C. C., McMichael, J. W., Meierhofer, M. B., Seery, C. W., Lumadue, S. S., Altmann, A. J., Toro, M. O. & Field, K. A., Jun 2015, In: *Ecology and Evolution*. 5, 11, p. 2203-2214 12 p.

Effects of early-life lead exposure on oxidative status and phagocytosis activity in great tits (*Parus major*)

Rainio, M. J., Eeva, T., Lilley, T., Stauffer, J. & Ruuskanen, S., Jan 2015, In: *Comparative Biochemistry and Physiology. Part C: Toxicology & Pharmacology*. 167, p. 24-34 11 p.

The effect of overwintering temperature on the body energy reserves and phenoloxidase activity of bumblebee *Bombus lucorum* queens

Vesterlund, S.-R., Lilley, T. M., van Ooik, T. & Sorvari, J., Aug 2014, In: *Insectes Sociaux*. 61, 3, p. 265-272 8 p.

Interspecific variation in redox status regulation and immune defence in five bat species: the role of ectoparasites

Lilley, T. M., Stauffer, J., Kanerva, M. & Eeva, T., Jul 2014, In: *Oecologia*. 175, 3, p. 811-823 13 p.

#### **Phenology of migratory bat activity across the Baltic Sea and the south-eastern North Sea**

Rydell, J., Bach, L., Bach, P., Diaz, L. G., Furmankiewicz, J., Hagner-Wahlsten, N., Kyheröinen, E.-M., Lilley, T., Masing, M., Meyer, M. M., Petersons, G., Suba, J., Vasko, V., Vintulis, V. & Hedenström, A., Jun 2014, In: *Acta Chiropterologica*. 16, 1, p. 139-147 9 p.

#### **Bats as Reservoir Hosts of Human Bacterial Pathogen, *Bartonella mayotimonensis***

Veikkolainen, V., Vesterinen, E. J., Lilley, T. M. & Pulliainen, A. T., 2014, In: *Emerging Infectious Diseases*. 20, 6, p. 960-967 8 p.

Next Generation Sequencing of Fecal DNA Reveals the Dietary Diversity of the Widespread Insectivorous Predator Daubenton's Bat (*Myotis daubentonii*) in Southwestern Finland

Vesterinen, E. J., Lilley, T., Laine, V. N. & Wahlberg, N., 27 Nov 2013, In: *PLoS One*. 8, 11, 14 p., 82168.

Population genetics of Daubenton's bat (*Myotis daubentonii*) in the Archipelago Sea, SW Finland

Laine, V. N., Lilley, T. M., Norrdahl, K. & Primmer, C. R., 31 Oct 2013, In: *Annales Zoologici Fennici*. 50, 5, p. 303-315 13 p.

#### **Bat rabies surveillance in Finland**

Nokireki, T., Huovilainen, A., Lilley, T., Kyheröinen, E.-M., Ek-Kommonen, C., Sihvonen, L. & Jakava-Viljanen, M., 2013, In: *BMC Veterinary Research*. 9, 8 p., 174.

#### **Resistance to oxidative damage but not immunosuppression by organic tin compounds in natural populations of Daubenton's bats (*Myotis daubentonii*)**

Lilley, T. M., Ruokolainen, L., Meierjohann, A., Kanerva, M., Stauffer, J., Laine, V. N., Atosuo, J., Lilius, E.-M. & Nikinmaa, M., 2013, In: *Comparative Biochemistry and Physiology. Part C: Toxicology & Pharmacology*. 157, 3, p. 298-305 8 p.

#### **Impact of tributyltin on immune response and life history traits of *Chironomus riparius*: single and multigeneration effects and recovery from pollution**

Lilley, T. M., Ruokolainen, L., Pikkarainen, A., Laine, V. N., Kilpimaa, J., Rantala, M. J. & Nikinmaa, M., 2012, In: *Environmental Science & Technology*. 46, 13, p. 7382-7389 8 p.

#### **Reed beds may facilitate transfer of tributyltin from aquatic to terrestrial ecosystems through insect vectors in the Archipelago Sea, SW Finland**

Lilley, T., Meierjohann, A., Ruokolainen, L., Peltonen, J., Vesterinen, E., Kronberg, L. & Nikinmaa, M., 2012, In: *Environmental Toxicology and Chemistry*. 31, 8, p. 1781-1787 7 p.

#### **Sediment organic tin contamination promotes impoverishment of non-biting midge species communities in the Archipelago Sea, S-W Finland**

Lilley, T., Ruokolainen, L., Vesterinen, E., Paasivirta, L. & Norrdahl, K., 2012, In: *Ecotoxicology*. 21, 5, p. 1333-1344 12 p.

#### **First encounter of European bat lyssavirus type 2 (EBLV-2) in a bat in Finland**

Jakava-Viljanen, M., Lilley, T., Kyheröinen, E.-M. & Huovilainen, A., 2010, In: *Epidemiology and Infection*. 138, 11, p. 1581-1585 5 p.

Digit length ratio (2D/4D): comparing measurements from X-rays and photographs in field voles (*Microtus agrestis*)

Lilley, T., Laaksonen, T., Huitu, O. & Helle, S., Aug 2009, In: *Behavioral Ecology and Sociobiology*. 63, 10, p. 1539-1547 9 p.

Maternal 2nd to 4th Digit Ratio Does Not Predict Lifetime Offspring Sex Ratio at Birth  
Helle, S. & Lilley, T., 2008, In: American Journal of Human Biology. 20, 6, p. 700-703 4 p.

**Zooplankton in relation to cyanobacteria across a geographic gradient in Archipelago Sea, northern Baltic**  
Ruokolainen, L., Lilley, T. & Tammi, M., 20 Feb 2006, In: Boreal Environment Research. 11, 1, p. 1-11 11 p.

## **Employment**

### **Senior Curator**

Zoology  
University of Helsinki  
Finland  
1 Feb 2025 → present

### **Academy Research Fellow**

Zoology  
University of Helsinki  
Finland  
1 Sept 2020 → present

### **Helsinki One Health (HOH)**

University of Helsinki  
HELSINGIN YLIOPISTO, Finland  
4 Sept 2024 → present

### **Supervisor for doctoral programme**

Doctoral Programme in Wildlife Biology  
University of Helsinki  
Helsinki, Finland  
30 Jun 2022 → present

### **Adjunct Professor**

Turun yliopisto  
Finland  
31 Aug 2017 → present

### **Marie Skłodowska Curie Research Fellow**

Univ Liverpool, University of Liverpool  
United Kingdom  
1 Jan 2016 → 1 Jan 2018

### **Post-doc**

Bucknell Univ, Bucknell University, Dept Biol  
Lewisburg, United States  
1 Jan 2014 → 1 Jan 2016