

# Publications

## Peer-reviewed articles

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- 2022 Heesen, R., **Fröhlich, M.**, Sievers, C., Woensdregt, M. & Dingemans, M. (in press) [Coordinating social action: A primer for the cross-species investigation of communicative repair](#). *Philosophical Transactions of the Royal Society B*. [PsyArXiv Preprint]
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- 2021 **Fröhlich, M.**, Bartolotta, N., Fryns, C., Wagner, C., Momon, L, Jaffrezic, M, Mitra Setia, T., Schuppli, C., van Noordwijk, M. A., & van Schaik, C.P. (2021). [Orangutans have larger gestural repertoires in captivity than in the wild – a case of weak innovation?](#) *iScience* 24: 103304.
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- Rodrigues, E. D. & **Fröhlich, M.** (2021). [Operationalizing intentionality in great ape communication: Social and ecological considerations](#). *International Journal of Primatology* (Online first).
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- Fröhlich, M.**, Bartolotta, N., Fryns, C., Wagner, C., Momon, L, Jaffrezic, M, Mitra Setia, T., van Noordwijk, M. A., & van Schaik, C.P. (2021). [Multicomponent and multisensory communicative acts in orang-utans may serve different functions](#). *Communications Biology* 4: 917.
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- 2020 **Fröhlich, M.**, Kunz, J., Fryns, C., Falkner, S., Rukmana, E., Schuppli, M., Knief, U., Utami Atmoko, S.S., Schuppli, C & van Noordwijk, M.A. (2020). [Social interactions and interaction partners in infant orang-utans of two wild populations](#). *Animal Behaviour* 166: 183–191.
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- Fröhlich, M.** & van Schaik, C.P. (2020). [Must all signals be evolved? A proposal for a new classification of communicative acts](#). *WIREs Cognitive Science* 11: e1527.
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- Fröhlich, M.**, Müller, G., Zeiräg, C., Wittig, R.M. & Pika, S. (2020). [Begging and social tolerance: Food solicitation tactics in young chimpanzees \(Pan troglodytes\) in the wild](#). *Evolution and Human Behavior* 41: 126–135.
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- 2019 **Fröhlich, M.**, Lee, K., Mitra Setia, T., Schuppli, C., & van Schaik, C.P. (2019). [The loud scratch: a newly identified gesture of Sumatran orang-utan mothers in the wild](#). *Biology Letters* 15: 20190209.
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- Fröhlich, M.**, Sievers, C., Townsend, S.W., Gruber, T., & van Schaik, C.P. (2019). [Multimodal communication and language origins: integrating gestures and vocalizations](#). *Biological Reviews* 94: 1809–1829.
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- Fröhlich, M.**, Wittig, R.M. & Pika, S. (2019). [The ontogeny of intentional communication in chimpanzees in the wild](#). *Developmental Science* 22: e12716.
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- Pika, S. & **Fröhlich, M.** (2019). [Gestural acquisition in great apes: the social negotiation hypothesis](#). *Animal Cognition* 22: 551–565.
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- 2018 **Fröhlich, M.** & Hobaiter, C. (2018). [The development of gestural communication in great apes](#). *Behavioral Ecology and Sociobiology* 72: 194.
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- Fröhlich, M.** & van Schaik, C.P. (2018). [The function of primate multimodal communication](#). *Animal Cognition* 21: 619–629.
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- 2017 **Fröhlich, M.** (2017). [Taking turns across channels: Conversation-analytic tools in animal communication](#). *Neuroscience & Biobehavioral Reviews* 80: 201–209.

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- Fröhlich, M., Müller, G., Zeiträg, C., Wittig, R.M. & Pika, S. (2017).** [Gestural development of chimpanzees in the wild: the impact of interactional experience.](#) *Animal Behaviour* 134: 271–282.
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- 2016 **Fröhlich, M., Wittig, R.M. & Pika, S. (2016).** [Play-solicitation gestures in chimpanzees in the wild: Flexible adjustment to social circumstances and individual matrices.](#) *Royal Society Open Science* 3: 160278.
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- Fröhlich, M., Kuchenbuch, P.H., Müller, G., Fruth, B., Furuichi, T., Wittig, R.M. & Pika, S. (2016).** [Unpeeling the layers of language: Bonobos and chimpanzees engage in cooperative turn-taking sequences.](#) *Scientific Reports* 6: 25887.
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- Fröhlich, M., Wittig, R.M. & Pika, S. (2016).** [Should I stay or should I go? Initiation of joint travel in mother-infant dyads of two chimpanzee communities in the wild.](#) *Animal Cognition* 19: 483–500.
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- 2012 **Fröhlich, M., Berger, A., Kramer-Schadt, S., Heckmann, I. & Martins, Q. (2012).** [Complementing GPS cluster analysis with activity data for studies of leopard \(\*Panthera pardus\*\) diet.](#) *South African Journal of Wildlife Research* 42: 104–110.

## Book contributions

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- 2019 **Fröhlich, M. & Pika, S. (2019).** [Gestural usage and development in two chimpanzee groups of different subspecies \(\*Pan troglodytes verus\*.P.t. \*schweinfurthii\*\).](#) In: *The Tai Chimpanzees: 40 years of Research*. Eds. Boesch, C., Wittig, R.M. et al. Cambridge University Press, Cambridge.
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- 2017 **Fröhlich, M. (2017).** [Catarrhine communication.](#) In: *Encyclopedia of Animal Cognition and Behavior*. Eds. Vonk, J., Shackelford, T. K. Springer International Publishing, Cham.

## Peer-reviewed conference proceedings

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- 2020 **Fröhlich, M. & van Schaik, C.P. (2020).** [Multimodal and multiplex communication in wild and captive orang-utans \(\*Pongo abelii/pygmaeus\*\)](#) In: *The Evolution of Language: Proceedings of the 12th International Conference (EVOLANG12)*, Eds. Ravignani, A., Barbieri, C., Martins, M., et al.
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- 2017 **Fröhlich, M., Müller, C., Zeiträg, C., Wittig, R.M. & Pika, S. (2017).** Developmental effects on gestural employment of chimpanzees in the wild. *Folia Primatologica* 88: 150–151.
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- 2016 **Fröhlich, M., Kuchenbuch, P.H., Müller, G., Fruth, B., Furuichi, T., Wittig, R.M. & Pika, S. (2016).** [Communication styles in bonobos and chimpanzees: Same same but different?](#) *PeerJ Preprints* 4: e1791v1.
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- Fröhlich, M., Kuchenbuch, P.H., Müller, G., Fruth, B., Furuichi, T., Wittig, R.M. & Pika, S. (2016).** [Cooperative communication and communication styles in bonobos and chimpanzees in the wild: same same but different?](#) In: *The Evolution of Language: Proceedings of the 11th International Conference (EVOLANG11)*, Eds. Roberts, S.G., Cuskley, C., et al.
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- 2015 **Fröhlich, M., Kuchenbuch, P.H., Hohmann, G., Furuichi, T., Wittig, R.M. & Pika, S. (2015).** The development of social and spatial independence: Do bonobos (*Pan paniscus*) and chimpanzees (*Pan troglodytes*) differ? *Folia Primatologica* 86: 284.