

## **Primary publications of Theo Bakker**

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### **2025**

- Bakker, T. C. M., Müller, B., Mehlis-Rick, M. (2025) Sexually attractive males produce relatively more sons in a fish with external fertilisation. PREPRINT (Version 1) available at Research Square [<https://doi.org/10.21203/rs.3.rs-7251518/v1>].
- Bakker, T. C. M., Hiermes, M., Müller, B., Martin, S., Rennison, D. J. & Rick, I. P. (2025). Adaptive variation in opsin expression of sticklebacks from different photic habitats. *Hydrobiologia* 852: 837-851.
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### **2021**

- Hiermes, M., Marder, M. B., Reher, S., Rick I. P., Vitt, S. & Bakker, T. C. M. (2021). Influence of lighting environment on social preferences in sticklebacks from two different photic habitats. II. Shoaling and mate preferences of lab-bred fishes. *Curr. Zool.* 67: 309-319.
- Hiermes, M., Reher, S., Rick, I. P. & Bakker, T. C. M. (2021). Influence of lighting environment on social preferences in sticklebacks from two different photic habitats. I. mate preferences of wild-caught females. *Curr. Zool.* 67: 299-308.
- Bakker, T. C. M. & Mundwiler, B. (2021). Nest-site selection in a fish species with paternal care. *Hydrobiologia* 848: 641-650.
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### **2020**

- Meuthen, D., Meuthen, I., Bakker, T. C. M. & Thünken, T. (2020). Anticipatory plastic response of the cellular immune system in the face of future injury: chronic high perceived predation risk induces lymphocytosis in a cichlid fish. *Oecologia* 194: 597-607.
- Vitt, S., Bakker, T. C. M. & Rick, I. P. (2020). Differential investment in pre- and postmating male sexual traits in response to prolonged exposure to ambient UVB radiation in a fish. *Sci. Total Environ.* 712:136341.
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### **2019**

- Meuthen, D., Baldauf, S. A., Bakker, T. C. M. & Thünken, T. (2019b). High perceived predation risk during development affects mutual mate choice in a cichlid fish. *Anim. Behav.* 158: 227-237.
- Meuthen, D., Bakker, T. C. M. & Thünken, T. (2019a). Predatory developmental environments shape loser behaviour in animal contests. *Behaviour* 156: 1519-1532.
- Hesse, S., Sandmann, S., Bakker, T. C. M. & Thünken, T. (2019). Impact of social rearing-environment on performance in a complex maze in females of a cichlid fish. *Behav. Process.* 167: 103915.
- Thünken, T., Baldauf, S. A., Bersau, N., Frommen, J. G. & Bakker, T. C. M. (2019). Parasite-induced colour alteration of intermediate hosts increases ingestion by suitable final host species. *Behaviour* 156: 1329-1348.

Vitt, S., Mehlis-Rick, M., Bakker, T. C. M. & Rick, I. P. (2019) Enhanced ambient UVB radiation affects post-mating, but not pre-mating sexual traits in a fish. *Oecologia* 190: 355-366.

Langen, K., Thünken, T., Klemm, J., Sandmann, S. & Bakker, T. C. M. (2019). Sperm size is negatively related to relative testis size in West African riverine cichlid fishes. *Sci. Nat.* 106: 30.

Rystrom, T. L., Bakker, T. C. M. & Rick, I. P. (2019). Mate assessment behavior is correlated to learning ability in female threespine sticklebacks. *Curr. Zool.* 65: 295-304.

Raveh, S., Langen, K., Bakker, T. C. M., Josephs, C. & Frommen J. G. (2019). Oddity, predation risk and social decisions in aquatic invertebrates. *Ethology* 125: 106-113.

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## 2018

Rystrom, T. L., Clement, V. F., Rick, I. P., Bakker, T. C. M. & Mehlis, M. (2018). Shoal sex composition and predation risk influence sub-adult threespine stickleback shoaling decisions. *Behav. Process.* 157: 495-501.

Rahn, A. K., Vitt, S., Drolshagen, L., Scharsack, J. P., Rick, I. P. & Bakker, T. C. M. (2018). Parasitic infection of the eye lens affects shoaling preferences in three-spined stickleback. *Biol. J. Linn. Soc.* 123: 377-387.

Meuthen, D., Baldauf, S. A., Bakker, T. C. M. & Thünken, T. (2018) Neglected patterns of variation in phenotypic plasticity: Age- and sex-specific antipredator plasticity in a cichlid fish. *Am. Nat.* 191: 475-590.

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Vitt, S., Zierul, J. E., Bakker, T. C. M. & Rick, I.P. (2017). Long-term UVB-exposure promotes predator-inspection behaviour in a fish. *Biol. Lett.* 13: 20170497.

Bakker, T. C. M., Frommen, J. G. & Thünken, T. (2017). Adaptive parasitic manipulation as exemplified by acanthocephalans. *Ethology* 123: 779-784.

Vitt, S., Rahn, A. K., Drolshagen, L., Bakker, T. C. M., Scharsack, J. P. & Rick, I. P. (2017). Enhanced ambient UVB light affects growth, body condition and the investment in innate and adaptive immunity in three-spined sticklebacks (*Gasterosteus aculeatus*). *Aquat. Ecol.* 51: 499-509.

Bakker, T. C. M., Giger, T., Frommen, J. G. & Largiadèr, C. R. (2017). Rapid molecular sexing of three-spined sticklebacks, *Gasterosteus aculeatus* L., based on large Y-chromosomal insertions. *J. Appl. Genet.* 58: 401-407.

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- Bakker, T. C. M. (2016). No evidence of sex reversal by means of experimentally altered sex ratios in threespine stickleback. Evol. Ecol. Res. 17: 291–300.
- Meuthen, D., Baldauf, S. A., Bakker, T. C. M. & Thünken, T. (2016). Predator-induced neophobia in juvenile cichlids. Oecologia 181: 947-958.
- Hiermes, M., Rick, I. P., Mehlis, M. & Bakker, T. C. M. (2016). The dynamics of color signals in male threespine sticklebacks *Gasterosteus aculeatus*. Curr. Zool. 62: 23-31.
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- Hesse, S., Bakker, T. C. M., Baldauf, S. A. & Thünken, T. (2016). Impact of social environment on inter- and intrasexual selection in a cichlid fish with mutual mate choice. Anim. Behav. 111: 85-92.

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- Rahn, A. K., Hammer, D. A. & Bakker, T. C. M. (2015). Experimental infection with the directly transmitted parasite *Gyrodactylus* influences shoaling behaviour in sticklebacks. *Anim. Behav.* 107: 253-261.
- Mehlis, M., Thünken, T., Bakker, T. C. M. & Frommen, J. G. (2015). Quantification acuity in spontaneous shoaling decisions of three-spined sticklebacks. *Anim. Cogn.* 18: 1125-1131.
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