

## Primary publications of Theo Bakker

---

### 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.

---

### 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.

---

### 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.

---

## 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.

---

## 2017

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.

Langen, K., Bakker, T. C. M., Baldauf, S. A., Shrestha, J. & Thünken, T. (2017b). Effects of ageing and inbreeding on reproductive traits in a cichlid fish II: the female perspective. *Biol. J. Linn. Soc.* 120: 762-770.

Langen, K., Bakker, T. C. M., Baldauf, S. A., Shrestha, J. & Thünken, T. (2017a). Effects of ageing and inbreeding on reproductive traits in a cichlid fish I: the male perspective. *Biol. J. Linn. Soc.* 120: 752-761.

---

## 2016

- Rahn, A. K., Eßer, E., Reher, S., Ihlow, F., MacColl, A. D. C. & Bakker, T. C. M. (2016). Distribution of common stickleback parasites on North Uist, Scotland, in relation to ecology and host traits. *Zoology* 119: 395-402.
- Rahn, A. K., Krassmann, J., Tsobanidis, K., MacColl, A. D. C. & Bakker, T. C. M. (2016). Strong neutral genetic differentiation in a host, but not in its parasite. *Infect. Genet. Evol.* 44: 261-271.
- 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.
- Thünken, T., Hesse, S., Bakker, T. C. M. & Baldauf, S. A. (2016). Benefits of kin shoaling in a cichlid fish: familiar and related juveniles show better growth. *Behav. Ecol.* 27: 419-425.
- Meuthen, D., Baldauf, S. A., Bakker, T. C. M. & Thünken, T. (2016). Conspecific alarm cues affect interspecific aggression in cichlid fishes. *Hydrobiologia* 767: 37-49.
- 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.

---

## 2015

- Hiermes, M., Bakker, T. C. M., Mehlis, M. & Rick, I. P. (2015). Context-dependent dynamic UV signaling in female three spine sticklebacks. *Sci. Rep.* 5: 17474.
- Hiermes, M., Vitt, S., Rick, I. P. & Bakker, T. C. M. (2015). Shoal choice and UV reflections in stickleback populations from different photic habitats. *Biol. J. Linn. Soc.* 116: 761-772.
- Mehlis, M., Rick, I. P. & Bakker, T. C. M. (2015). Dynamic resource allocation between pre- and postcopulatory episodes of sexual selection determines competitive fertilization success. *Proc. R. Soc. B* 282: 20151279.
- 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.

Modarressie, R., Günther, C. & Bakker, T. C. M. (2015). UV deprivation influences social UV preference in juvenile sticklebacks. *Anim. Behav. Cogn.* 2: 186-199.

Mehlis, M., Rahn, A. & Bakker, T. C. M. (2015). Sperm quality but not relatedness predicts sperm competition success in threespine sticklebacks (*Gasterosteus aculeatus*). *BMC Evol. Biol.* 15: 74.

Hiermes, H., Mehlis, M., Rick, I. P. & Bakker, T. C. M. (2015). Habitat-dependent olfactory discrimination in three-spined sticklebacks (*Gasterosteus aculeatus*). *Anim. Cogn.* 18: 839-846.

---

## 2014

Mehlis, M. & Bakker, T. C. M. (2014). The influence of ambient water temperature on sperm performance and fertilization success in three-spined sticklebacks (*Gasterosteus aculeatus*). *Evol. Ecol.* 28: 655-667.

Rick, I. P., Mehlis, M., Eßer, E. & Bakker, T. C. M. (2014). The influence of ambient UV light on sperm quality and sexual ornamentation in three-spined sticklebacks (*Gasterosteus aculeatus*). *Oecologia* 174: 393-402.

Bakker, T. C. M., Hollmann M., Mehlis, M. & Zbinden, M. (2014). Functional variation of sperm morphology in sticklebacks. *Behav. Ecol. Sociobiol.* 68: 617-627.

Traniello, J. F. A. & Bakker, T. C. M. (2014). Editorial fairness: speed, accuracy and awareness benefit authors. *Trends Ecol. Evol.* 29: 68-69.

Franke, F., Rahn, A. K., Dittmar, J., Erin, N., Rieger, J., Haase, D., Samonte-Padilla, I., Lange, J., Jakobsen, P. J., Hermida, M., Fernandez, C., Kurtz, J., Bakker, T. C. M., Reusch, T. B., Kalbe, M., Scharsack, J. P. (2014). *In vitro* leukocyte response of three-spined sticklebacks (*Gasterosteus aculeatus*) to helminth parasite antigens. *Fish Shellfish Immunol.* 36: 130-140.

Thünken, T., Bakker, T. C. M. & Baldauf, S. A. (2014). "Armpit effect" in an African cichlid fish: self-referent kin recognition in mating decisions of male *Pelvicachromis taeniatus*. *Behav. Ecol. Sociobiol.* 68: 99-104.

---

## 2013

Mehlis, M., Hilke, L. K. & Bakker, T. C. M. (2013). Attractive males have faster sperm in three-spined sticklebacks *Gasterosteus aculeatus*. *Curr. Zool.* 59: 761-768.

Langen, K., Thünken, T. & Bakker, T. C. M. (2013). No experimental evidence for sneaking behaviour in a West African cichlid with extremely long sperm. *Int. J. Evol. Biol.* 2013: 714304.

Bakker, T. C. M. & Traniello, J. F. A. (2013). Editorial: Special issue on multimodal communication. *Behav. Ecol. Sociobiol.* 67: 1379.

Baldauf, S. A., Engqvist, L., Ottenheim, T., Bakker, T. C. M. & Thünken, T. (2013). Sex-specific conditional mating preferences in a cichlid fish: implications for sexual conflict. *Behav. Ecol. Sociobiol.* 67: 1179-1186.

Mehlis, M. & Bakker, T. C. M. (2013). Male reproductive traits of full-sibs of different age classes in three-spined sticklebacks (*Gasterosteus aculeatus*). *SpringerPlus* 2: 175.

Modarressie, R., Rick, I. P. & Bakker, T. C. M. (2013). Ultraviolet reflection enhances the risk of predation in a vertebrate. *Curr. Zool.* 59: 151-159.

---

## 2012

Frommen, J. G., Bakker, T. C. M., Proscurcin, L. C. & Mehlis, M. (2012). Gravity-associated shoaling decisions in three-spined sticklebacks (*Gasterosteus aculeatus*). *Ethology* 118: 1149-1156.

Hesse, S., Bakker, T. C. M., Baldauf, S. A. & Thünken, T. (2012). Kin recognition by phenotype matching is family- rather than self-referential in juvenile cichlid fish. *Anim. Behav.* 84: 451-457.

Mehlis, M., Frommen, J. G., Rahn, A. K. & Bakker, T. C. M. (2012). Inbreeding in three-spined sticklebacks (*Gasterosteus aculeatus* L.): effects on testis and sperm traits. *Biol. J. Linn. Soc.* 107: 510-510.

Thünken, T., Meuthen, D., Bakker, T. C. M. & Baldauf, S. A. (2012). Sex-specific trade-off between mating preferences for genetic compatibility and body size in a cichlid fish with mutual mate choice. *Proc. R. Soc. Lond. B* 279: 2959-2964.

Rick, I. P., Bloemker, D. & Bakker, T. C. M. (2012). Spectral composition and visual foraging in the threespine stickleback (Gasterosteidae: *Gasterosteus aculeatus* L.): elucidating the role of ultraviolet wavelengths. *Biol. J. Linn. Soc.* 105: 359-368.

---

## 2011

Rick, I. P., Mehlis, M. & Bakker, T. C. M. (2011). Male red ornamentation is associated with female red sensitivity in sticklebacks. *PLoS ONE* 6: e25554.

Langen, K., Schwarzer, J., Kullmann, H., Bakker, T. C. M. & Thünken, T. (2011). Microsatellite support for active inbreeding in a cichlid fish. *PLoS ONE* 6: e24689.

Bourke, J. E., Barrientos, C, Ortiz, J. C., Busse, K., Böhme, W. & Bakker, T. C. M. (2011). Colour change in Darwin's frogs (*Rhinoderma darwinii*, Duméril & Bibron, 1841). *J. Nat. Hist.* 45: 2661-2668.

Bourke, J. E., Busse, K. & Bakker, T. C. M. (2011). Sex differences in polymorphic body coloration and dorsal patterns in Darwin's frogs (*Rhinoderma darwinii*). *Herpetol. J.* 21: 227-234.

Bakker, T. C. M. & Traniello, J. F. A. (2011). Editorial: new chief editors. *Behav. Ecol. Sociobiol.* 65: 1236-1239.

Meuthen, D., Baldauf, S. A., Bakker, T. C. M. & Thünken, T. (2011). Substrate-treated water: a method to enhance cichlid activity in laboratory experiments. *Aquat. Biol.* 13: 35-40.

Frommen, J. G., Herder, F., Engqvist, L., Mehlis, M., Bakker T. C. M., Schwarzer, J. & Thünken, T. (2011). Costly plastic morphological responses to predator odour cues in three-spined sticklebacks (*Gasterosteus aculeatus*) *Evol. Ecol.* 25: 641-656.

Thünken, T., Baldauf, S. A., Kullmann, H., Schuld, J., Hesse, S. & Bakker, T. C. M. (2011). Size-related inbreeding preference and competitiveness in male *Pelvicachromis taeniatus* (Cichlidae). *Behav. Ecol.* 22: 358-362.

Baldauf, S. A., Bakker, T. C. M., Kullmann, H. & Thünken, T. (2011). Female nuptial coloration and its adaptive significance in a mutual mate choice system. *Behav. Ecol.* 22: 478-485.

---

## 2010

Baldauf, S. A., Bakker, T. C. M., Herder, F., Kullmann, H. & Thünken, T. (2010). Male mate choice scales female ornament allometry in a cichlid fish. *BMC Evol. Biol.* 10: 301.

Thünken, T., Baldauf, S. A., Bersau, N., Bakker, T. C. M., Kullmann, H. & Frommen, J. G. (2010). Impact of olfactory non-host predator cues on aggregation behaviour and activity in *Polymorphus minutus* infected *Gammarus pulex*. *Hydrobiologia* 654: 137-145.

Thünken, T., Meuthen, D., Bakker, T. C. M. & Kullmann, H. (2010). Parental investment in relation to offspring quality in the biparental cichlid fish, *Pelvicachromis taeniatus*. *Anim. Behav.* 80: 69-74.

Mehlis, M., Bakker, T. C. M., Engqvist, L. & Frommen, J. G. (2010). To eat or not to eat: egg-based assessment of paternity triggers fine-tuned decisions about filial cannibalism. *Proc. R. Soc. Lond. B* 277: 2627-2635.

Bakker, T. C. M. (2010). Retro- and perspective: Determinants of dominance. In: Tinbergen's Legacy in *Behaviour: Sixty Years of Landmark Stickleback Papers* (F. A. von Hippel, ed.), pp. 117-132. Brill, Leiden.

Rick, I. P. & Bakker, T. C. M. (2010). Ultraviolet light influences habitat preferences in a fish under predation risk. *Evol. Ecol.* 24: 25-37.

---

## 2009

Frommen, J. G., Mehlis, M. & Bakker, T. C. M. (2009). Predator inspection behaviour in female three-spined sticklebacks *Gasterosteus aculeatus* is associated with status of gravidity. *J. Fish Biol.* 75: 2143-2153.

Mehlis, M., Bakker, T. C. M., Langen, K. & Frommen, J. G. (2009). Cain and Abel reloaded? Kin recognition and male-male aggression in three-spined sticklebacks *Gasterosteus aculeatus* L. *J. Fish Biol.* 75: 2154-2162.

Baldauf, S. A., Kullmann, H., Thünken, T., Winter, S. & Bakker, T. C. M. (2009). Computer animation as a tool to study preferences in the cichlid fish *Pelvicachromis taeniatus*. *J. Fish Biol.* 75: 738-746.

Thünken, T., Waltschyk, N., Bakker, T. C. M. & Kullmann, H. (2009). Olfactory self-recognition in a cichlid fish. *Anim. Cogn.* 12: 717-724.

Baldauf, S. A., Kullmann, H., Schroth, S. H., Thünken, T., Bakker, T. C. M. (2009). You can't always get what you want: size assortative mating by mutual mate choice as a resolution of sexual conflict. *BMC Evol. Biol.* 9: 129.

Frommen, J. G., Hiermes, M. & Bakker, T. C. M. (2009). Disentangling the effects of group size and density on shoaling decisions of three-spined sticklebacks (*Gasterosteus aculeatus*). *Behav. Ecol. Sociobiol.* 63: 1141-1148.

Frommen, J. G., Rahn, A. K., Schroth, S. H., Waltschyk, N. & Bakker, T. C. M. (2009). Mate-choice copying when both sexes face high costs of reproduction. *Evol. Ecol.* 23: 435-446.

Mehlis, M., Bakker, T. C. M. & Frommen, J. G. (2009). Nutritional benefits of filial cannibalism in three-spined sticklebacks (*Gasterosteus aculeatus*). *Naturwissenschaften* 96: 399-403.

---

## 2008

Kullmann, H., Thünken, T., Baldauf, S. A., Bakker, T. C. M. & Frommen, J. G. (2008). Fish odour triggers conspecific attraction behaviour in an aquatic invertebrate. *Biol. Lett.* 4: 458-460.

Rick, I. P. & Bakker, T. C. M. (2008). Color signalling in conspicuous red sticklebacks: do ultraviolet signals surpass others? *BMC Evol. Biol.* 8: 189.

Mehlis, M., Bakker, T. C. M. & Frommen, J. G. (2008). Smells like sib spirit: kin recognition in three-spined sticklebacks (*Gasterosteus aculeatus*) is mediated by olfactory cues. *Anim. Cogn.* 11: 643-650.

Baldauf, S. A., Kullmann, H. & Bakker, T. C. M. (2008). Technical restrictions of computer-manipulated visual stimuli and display units for studying animal behaviour. *Ethology* 114: 737-751.

Rick, I. P. & Bakker, T. C. M. (2008). Males do not see only red: UV wavelengths and male territorial aggression in the three-spined stickleback (*Gasterosteus aculeatus*). *Naturwissenschaften* 95: 631-638.

Frommen, J. G., Luz, C., Mazzi, D. & Bakker, T. C. M. (2008). Inbreeding depression affects fertilization success and survival but not breeding coloration in threespine sticklebacks. *Behaviour* 145: 425-441.

Rick, I. P. & Bakker, T. C. M. (2008). UV wavelengths make female three-spined sticklebacks (*Gasterosteus aculeatus*) more attractive for males. *Behav. Ecol. Sociobiol.* 62: 439-445.

---

## 2007

Modarressie, R. & Bakker, T. C. M. (2007). A limited role for ultraviolet radiation when threespine sticklebacks (*Gasterosteus aculeatus*) prey upon *Daphnia*. *Can. J. Fish. Aquat. Sci.* 64: 1573-1580.

Frommen, J. G., Luz, C. & Bakker, T. C. M. (2007). Nutritional state influences shoaling preference for familiars. *Zoology* 110: 369-376.

Thünken, T., Bakker, T. C. M., Baldauf, S. A. & Kullmann, H. (2007). Direct familiarity does not alter mating preferences for sisters in male *Pelvicachromis taeniatus* (Cichlidae). *Ethology* 113: 1107-1112.

Thünken, T., Bakker, T. C. M. & Kullmann, H. (2007). Extraordinarily long sperm in the socially monogamous cichlid fish *Pelvicachromis taeniatus*. *Naturwissenschaften* 94: 489-491.

Frommen, J. G., Brendler, C. & Bakker, T. C. M. (2007). The tale of the bad stepfather: male three-spined sticklebacks (*Gasterosteus aculeatus* L.) recognize foreign eggs in their manipulated nest by egg cues alone. *J. Fish Biol.* 70: 1295-1301.

Frommen, J. G., Luz, C. & Bakker, T. C. M. (2007). Kin discrimination in sticklebacks is mediated by social learning rather than innate recognition. *Ethology* 113: 276-282.

Frommen, J. G., Mehlis, M., Brendler, C. & Bakker, T. C. M. (2007). Shoaling decisions in three-spined sticklebacks (*Gasterosteus aculeatus*) - familiarity, kinship and inbreeding. *Behav. Ecol. Sociobiol.* 61: 533-539.

Thünken, T., Bakker, T. C. M., Baldauf, S. A. & Kullmann, H. (2007). Active inbreeding in a cichlid fish and its adaptive significance. *Curr. Biol.* 17: 225-229.

Baldauf, S. A., Thünken, T., Frommen, J. G., Bakker, T. C. M., Heupel, O. & Kullmann, H. (2007). Infection with an acanthocephalan manipulates an amphipod's reaction to a fish predator's odours. *Int. J. Parasitol.* 37: 61-65.

---

## 2006

Modarressie, R. & Bakker, T. C. M. (2006). No evidence for UV-based nest-site selection in sticklebacks. *Front. Zool.* 3: 17.

Bakker, T. C. M., Mazzi, D. & Kraak, S. B. M. (2006). Broods of attractive stickleback males require greater paternal care. *J. Fish Biol.* 69: 1164-1177.



Frommen, J. G. & Bakker, T. C. M. (2006). Inbreeding avoidance through non-random mating in sticklebacks. *Biol. Lett.* 2: 232-235.

Bakker, T. C. M., Zbinden, M., Frommen, J. G., Weiss, A. & Largiadèr, C. R. (2006). Slow fertilization of stickleback eggs: the result of sexual conflict? *BMC Ecol.* 6: 7.

Modarressie, R., Rick, I. P. & Bakker, T. C. M. (2006). UV matters in shoaling decisions. *Proc. R. Soc. Lond. B* 273: 849-854.

Rick, I. P., Modarressie, R. & Bakker, T. C. M. (2006). UV wavelengths affect female mate choice in three-spined sticklebacks. *Anim. Behav.* 71: 307-313.

---

## 2004

Rick, I. P., Modarressie, R. & Bakker, T. C. M. (2004). Male three-spined sticklebacks reflect in ultraviolet light. *Behaviour* 141: 1531-1541.

Frommen, J. G. & Bakker, T. C. M. (2004). Adult three-spined sticklebacks prefer to shoal with familiar kin. *Behaviour* 141: 1401-1409.

Zbinden, M., Largiadèr, C. R. & Bakker, T. C. M. (2004). Body size of virtual rivals affects ejaculate size in sticklebacks. *Behav. Ecol.* 15: 137-140.

Mazzi, D., Künzler, R., Largiadèr, C. R. & Bakker, T. C. M. (2004). Inbreeding affects female preference for symmetry in computer-animated sticklebacks. *Behav. Genet.* 34: 417-424.

---

## 2003

Zbinden, M., Mazzi, D., Künzler, R., Largiadèr, C. R. & Bakker, T. C. M. (2003). Courting virtual rivals increase ejaculate size in sticklebacks (*Gasterosteus aculeatus*). *Behav. Ecol. Sociobiol.* 54: 205-209.

Mazzi, D., Künzler, R., & Bakker, T. C. M. (2003). Female preference for symmetry in computer-animated three-spined sticklebacks, *Gasterosteus aculeatus*. *Behav. Ecol. Sociobiol.* 54: 156-161.

Mazzi, D. & Bakker, T. C. M. (2003). A predator's dilemma: prey choice and parasite susceptibility in three-spined sticklebacks. *Parasitology* 126: 339-347.

---

## 2002

Mazzi, D., Largiadèr, C. R. & Bakker, T. C. M. (2002). Inbreeding and developmental stability in three-spined sticklebacks (*Gasterosteus aculeatus* L.). *Heredity* 89: 293-299.

Heckel, G., Zbinden, M., Mazzi, D., Kohler, A., Reckeweg, G., Bakker, T. C. M. & Largiadèr, C. R. (2002). Microsatellite markers for the three-spined stickleback (*Gasterosteus aculeatus* L.) and their applicability in a freshwater and an anadromous population. *Conserv. Genet.* 3: 79-81.

---

**2001**

- Zbinden, M., Largiadèr, C. R. & Bakker, T. C. M. (2001). Sperm allocation in the three-spined stickleback. *J. Fish Biol.* 59: 1287-1297.
- Bakker, T. C. M. & Zbinden, M. (2001). Counting on immunity. *Nature* 114: 262-263.
- Milinski, M., Semmann, D., Bakker, T. C. M. & Krambeck, H.-J. (2001). Cooperation through indirect reciprocity: image scoring or standing strategy? *Proc. R. Soc. Lond. B* 268: 2495-2501.
- Mazzi, D. & Bakker, T. C. M. (2001). Acid stress increases pelvic spine asymmetry in juvenile three-spined sticklebacks. *J. Fish Biol.* 59: 582-592.
- Künzler, R. & Bakker, T. C. M. (2001). Female preferences for single and combined traits in computer animated stickleback males. *Behav. Ecol.* 12: 681-685.
- Largiadèr, C. R., Fries, V. & Bakker, T. C. M. (2001). Genetic analysis of sneaking and egg-thievery in a natural population of the three-spined stickleback (*Gasterosteus aculeatus* L.). *Heredity* 86: 459-468.

---

**2000**

- Kraak, S. B. M., Bakker, T. C. M. & Hocevar, S. (2000). Stickleback males, especially large and red ones, prefer to build their nest concealed in macrophytes. *Behaviour* 137: 907-919.
- Künzler, R. & Bakker, T. C. M. (2000). Pectoral fins and paternal quality in sticklebacks. *Proc. R. Soc. Lond. B* 267: 999-1004.

---

**1981-1999**

- Kraak, S. B. M., Bakker, T. C. M. & Mundwiler, B. (1999). Sexual selection in sticklebacks in the field: correlates of reproductive, mating and paternal success. *Behav. Ecol.* 10: 696-706.
- Bakker, T. C. M. (1999). The study of intersexual selection using Quantitative Genetics. *Behaviour* 136: 1237-1266.
- Bakker, T. C. M., Künzler, R. & Mazzi, D. (1999). Condition-related mate choice in sticklebacks. *Nature* 401:234.
- Bakker, T. C. M. & Mundwiler, B. (1999). Pectoral fin size in a fish species with paternal care: a condition-dependent sexual trait revealing infection status. *Freshw. Biol.* 41: 543-551.
- Kraak, S. B. M., Bakker, T. C. M. & Mundwiler, B. (1999). Correlates of the duration of the egg collecting phase in the three-spined stickleback. *J. Fish Biol.* 54: 1038-1049.

- Largiadèr, C. R., Fries, V., Kobler, B. & Bakker, T. C. M. (1999). Isolation and characterization of microsatellite loci from the three-spined stickleback (*Gasterosteus aculeatus* L.). *Mol. Ecol.* 8: 342-344.
- Künzler, R. & Bakker, T. C. M. (1998). Computer animations as a tool in the study of mating preferences. *Behaviour* 135: 1137-1159.
- Kraak, S. B. M. & Bakker, T. C. M. (1998). Mutual mate choice in sticklebacks: attractive males choose big females, which lay big eggs. *Anim. Behav.* 56: 859-866.
- Kraak, S. B. M., Bakker, T. C. M. & Mundwiler, B. (1997). How to quantify embryo survival in nest-building fishes, exemplified with three-spined sticklebacks. *J. Fish Biol.* 51: 1262-1264.
- Bakker, T. C. M., Mazzi, D. & Zala, S. (1997). Parasite-induced changes in behavior and color make *Gammarus pulex* more prone to fish predation. *Ecology* 78: 1098-1104.
- Bakker, T. C. M. & Rowland, W. J. (1995). Male mating preference in sticklebacks: effects of repeated testing and own attractiveness. *Behaviour* 132: 935-949.
- Banbura, J. & Bakker, T. C. M. (1995). Lateral plate morph genetics revisited: evidence for a fourth morph in three-spined sticklebacks. *Behaviour* 132: 1153-1171.
- Bakker, T. C. M. & Pomiankowski, A. (1995). The genetic basis of female mate preferences. *J. evol. Biol.* 8: 129-171.
- Bakker, T. C. M. (1994) Evolution of aggressive behaviour in the threespine stickleback. In: *The Evolutionary Biology of the Threespine Stickleback* (M. A. Bell & S. A. Foster, eds.), pp. 345-380. Oxford University Press, Oxford.
- Bakker, T. C. M. (1994). Genetic correlations and the control of behavior, exemplified by aggressiveness in sticklebacks. *Adv. Stud. Behav.* 23: 135-171.
- Bakker, T. C. M. & Mundwiler, B. (1994). Female mate choice and male red coloration in a natural stickleback population. *Behav. Ecol.* 5: 74-80.
- Bakker, T. C. M. & Milinski, M. (1993). The advantages of being red: sexual selection in the stickleback. In: *Behavioural Ecology of Fishes* (F. A. Huntingford & P. Torricelli, eds), pp. 287-300. Harwood Academic Publishers, Chur, Switzerland.
- Bakker, T. C. M. & Milinski, M. (1993). The advantages of being red: sexual selection in the stickleback. *Mar. Behav. Physiol.* 23: 287-300.
- Goldschmidt, T., Bakker, T. C. M. & Feuth-de Bruijn, E. (1993). Selective copying in mate choice of female sticklebacks. *Anim. Behav.* 45: 541-547.
- Bakker, T. C. M. (1993). Positive genetic correlation between female preference and preferred male ornament in sticklebacks. *Nature* 363: 255-257.

- Milinski, M. & Bakker, T. C. M. (1992). Costs influence sequential mate choice in sticklebacks, *Gasterosteus aculeatus*. Proc. R. Soc. Lond. B 250: 229-233.
- Bakker, T. C. M. & Milinski, M. (1991). Sequential female choice and the previous male effect in sticklebacks. Behav. Ecol. Sociobiol. 29: 205-210.
- Bakker, T. C. M. (1990). Genetic variation in female mating preference. Neth. J. Zool. 40: 617-642.
- Goldschmidt, T. & Bakker, T. C. M. (1990). Determinants of reproductive success of male sticklebacks in the field and in the laboratory. Neth. J. Zool. 40: 664-687.
- Milinski, M. & Bakker, T. C. M. (1990). Female sticklebacks use male coloration in mate choice and hence avoid parasitized males. Nature 344: 330-333.
- Bakker, T. C. M., Feuth-de Bruijn, E. & Sevenster, P. (1989). Asymmetrical effects of prior winning and losing on dominance in sticklebacks. Ethology 82: 224-229.
- Bakker, T. C. M. & Sevenster, P. (1989). Changes in the sexual tendency accompanying selection for aggressiveness in the three-spined stickleback (*Gasterosteus aculeatus* L.). J. Fish Biol. 34: 233-243.
- Bakker, T. C. M. & Sevenster, P. (1988). Plate morphs of *Gasterosteus aculeatus* Linnaeus (Pisces: Gasterosteidae): comments on terminology. Copeia 1988: 659-663.
- Bakker, T. C. M., Feuth-de Bruijn, E. & Sevenster, P. (1988). Albinism in the threespine stickleback, *Gasterosteus aculeatus*. Copeia 1988: 236-238.
- Bakker, T. C. M. & Feuth-de Bruijn, E. (1988). Juvenile territoriality in stickleback *Gasterosteus aculeatus* L. Anim. Behav. 36: 1556-1558.
- Bakker, T. C. M. (1986). Aggressiveness in sticklebacks (*Gasterosteus aculeatus* L.): a behaviour-genetic study. Behaviour 98: 1-144.
- Bakker, T. C. M. (1985). Two-way selection for aggression in juvenile, female and male three-spined sticklebacks (*Gasterosteus aculeatus* L.), with some notes on hormonal factors. Behaviour 93: 69-81.
- Bakker, T. C. M. & Sevenster, P. (1983). Determinants of dominance in male sticklebacks (*Gasterosteus aculeatus* L.). Behaviour 86: 55-71.
- van Oortmerssen, G. A. & Bakker, T. C. M. (1981). Artificial selection for short and long attack latencies in wild *Mus musculus domesticus*. Behav. Genet. 11: 115-126.
-

## Edited works, editorials, published abstracts, etc. of Theo Bakker

---

### 2024

Bakker, T. C. M. & Traniello, J. F. A. (2024). Editorial: Exorcising the ghost in the computer: ChatGPT, science publishing, and GenAI policy for *Behavioral Ecology and Sociobiology*. *Behav. Ecol. Sociobiol.* 78: 2.

---

### 2022

Rosengaus, R., Traniello, J. & Bakker, T. (2022). Editorial: Sociality and disease: behavioral perspectives in ecological and evolutionary immunology. *Behav. Ecol. Sociobiol.* 76: 98.

---

### 2020

Traniello, J. F. A. & Bakker, T. C. M. (2020). Editorial: Social behavior and disease: supporting science during the pandemic. *Behav. Ecol. Sociobiol.* 74: 99.

Bakker, T. C. M. & Traniello, J. F. A. (2020). Editorial: Ensuring data access, transparency, and preservation: mandatory data deposition for *Behavioral Ecology and Sociobiology*. *Behav. Ecol. Sociobiol.* 74: 132.

---

### 2019

Bakker, T. C. M. & Traniello, J. F. A. (2019). Editorial: Peer-review reciprocity and commitment to manuscript evaluation. *Behav. Ecol. Sociobiol.* 73: 38.

---

### 2018

Bakker, T. C. M., Bleckmann, H., Mogdans, J. & Schluessel, V. (2018). Editorial to the topical collection "From sensory perception to behavior". *Behav. Ecol. Sociobiol.* 72: 181.

---

### 2017

Traniello, J. F. A. & Bakker, T. C. M. (2017). Editorial: Behavioral ecology and sociobiology in post-truth society. *Behav. Ecol. Sociobiol.* 71: 76.

Bakker, T. C. M. & Traniello, J. F. A. (2017). Editor's choice: Behave in your parasite's interest. *Behav. Ecol. Sociobiol.* 71: 44.

---

### 2016

Bakker, T. C. M. & Traniello, J. F. A. (2016). Editorial: *Behavioral Ecology and Sociobiology* at 40. *Behav. Ecol. Sociobiol.* 70: 1991-1993.

Traniello, J. F. A. & Bakker, T. C. M. (2016). Editorial: Intellectual theft: pitfalls and consequences of plagiarism. *Behav. Ecol. Sociobiol.* 70: 1789-1791.

Bakker, T. C. M. (2016). Editorial: special issue on *Integrative Analysis of Division of Labor*. *Behav. Ecol. Sociobiol.* 70: 993-994.

---

**2015**

Traniello, J. F. A. & Bakker, T. C. M. (2015). Editorial: Minimizing observer bias in behavioral research: blinded methods reporting requirements for *Behavioral Ecology and Sociobiology*. *Behav. Ecol. Sociobiol.* 69: 1573-1574.

---

**2013**

Bakker, T. C. M. & Traniello, J. F. A. (2013). Editorial: Special Issue on Multimodal Communication. *Behav. Ecol. Sociobiol.* 67: 1379.

---

**2011**

Bakker, T. C. M. & Traniello, J. F. A. (2011). Editorial: new chief editors. *Behav. Ecol. Sociobiol.* 65: 1669-1670.

---

**2007**

Bakker, T. C. M., Lubjuhn, T., Kullmann, H. & Starck, J. M. (2007). Preface. Causal and historical evolutionary biology: Papers in honour of Professor Klaus Peter Sauer. *Zoology* 110: 331-335

Bakker, T. C. M., Lubjuhn, T., Kullmann, H. & Starck, J. M. (eds.) (2007). Papers in honour of Professor Klaus Peter Sauer. *Zoology* volume 110 (5). Pp. 331-438. Elsevier, Amsterdam.

---

**2001**

Zbinden, M., Mazzi, D., Künzler, R., Largiadèr, C. R. & Bakker, T. C. M. (2001). Risk of sperm competition: sticklebacks take a closer look at virtual neighbours. *Adv. Ethol.* 36: 292 (abstract).

Bakker, T. C. M., Bobbio, L. & Tognola, M. (2001). Females benefit directly when choosing attractive males in sticklebacks. *Adv. Ethol.* 36: 118 (abstract).

---

**1975-1999**

Zala, S. & Bakker, T. C. M. (1999). Parasitic infection lowers the attractiveness but not parental quality of male stickleback fishes. *Adv. Ethol.* 34: 182 (abstract).

Bakker, T. C. M., Mazzi, D. & Kraak, S. B. M. (1998). Embryo survival after experimental deprivation of paternal care in a field population of three-spined sticklebacks, *Gasterosteus aculeatus*. *Deutsche Gesellschaft für Limnologie (DGL) - Tagungsbericht 1997 (Frankfurt/M.), Krefeld*: 130-133.

Künzler, R. & Bakker, T. C. M. (1997). Effect of pectoral fin size on parental care ability in male three-spined sticklebacks (*Gasterosteus aculeatus*) - an experimental study. *Adv. Ethol.* 32: 244 (abstract).

- Bakker, T. C. M., Mazzi, D. & Zala, S. (1997). Parasite-induced changes in both behaviour and coloration make *Gammarus pulex* more susceptible to fish predation. *Adv. Ethol.* 32: 159 (abstract).
- Bakker, T. C. M. & Mazzi, D. (1997). How necessary is paternal care for the development of stickleback embryos? *Revue suisse Zool.* 104: 709 (abstract).
- Bakker, T. C. M., Mazzi, D. & Kraak, S. B. M. (1997). How important is paternal care for the development of stickleback embryos? *Verh. Dtsch. Zool. Ges.* 90: 227.
- Bakker, T. C. M. & Milinski, M. (1997). Sequentielle Partnerwahl bei Stichlingen. In: *Verhaltensbiologie*, 3rd ed. (D. Franck, ed.), pp. 161-164. Georg Thieme Verlag, Stuttgart.
- Bakker, T. C. M., Mazzi, D. & Zala, S. (1996). Enhanced transmission of the parasite *Pomphorhynchus laevis* through behavioural and colour changes in its intermediate host, *Gammarus pulex*. *Revue suisse Zool.* 103: 778 (abstract).
- Bakker, T. C. M., Mazzi, D. & Zala, S. (1996). Die Übertragung des Parasiten *Pomphorhynchus laevis* (Acanthocephala) auf Stichlinge, *Gasterosteus aculeatus* (Pisces) wird durch Verhaltens- und Farbänderungen im Zwischenwirt *Gammarus pulex* (Amphipoda) gefördert. *Verh. Dtsch. Zool. Ges.* 89: 235.
- Bakker, T. C. M. & Sevenster, P. (1995). Sticklebacks as models for animal behaviour and evolution. Preface. *Behaviour* 132: 907-913.
- Bakker, T. C. M. & Sevenster, P. (eds.) (1995). Sticklebacks as models for animal behaviour and evolution. Papers read at the Second International Symposium on Stickleback Behaviour. *Behaviour* 132 (13-16). Pp. 397. E. J. Brill, Leiden.
- Bakker, T. C. M. (1993) The evolution of male ornamentation through female choice in three-spined sticklebacks, *Gasterosteus aculeatus* L. Habilitationsschrift (Thesis), University of Bern, Switzerland.
- Milinski, M. & Bakker, T. C. M. (1991). Sexuelle Selektion: Stichlingsweibchen erkennen parasitierte Männchen nur an deren Balzfärbung. *Verh. Dtsch. Zool. Ges.* 84: 320.
- Bakker, T. C. M. & Kortmulder, K. (eds.) (1990). Essays in Honour of P. Sevenster. *Neth. J. Zool.*, volume 40 (4). Pp. 226. E. J. Brill, Leiden.
- Milinski, M. & Bakker, T. C. M. (1990). Male breeding coloration, female choice and parasites in sticklebacks. *Revue suisse Zool.* 97: 798 (abstract).
- Bakker, T. C. M., Feuth-de Bruijn, E. & Sevenster, P. (1988). Population differences in aggressiveness of sticklebacks (*Gasterosteus aculeatus* L.). *Behav. Genet.* 18: 706 (abstract).
- Bakker, T. C. M. (1986). Aggressiveness in sticklebacks (*Gasterosteus aculeatus* L.): a behaviour-genetic study. Ph.D. Thesis, University of Leiden, Netherlands.

- Sevenster, P. & Bakker, T. C. M. (1984). Genetic factors in aggressive behaviour of sticklebacks (*Gasterosteus aculeatus* L.). *Aggress. Behav.* 10: 172 (abstract).
- Bakker, T. C. M. & Sevenster, P. (1983). Selectie op agressief gedrag bij de driedoornige stekelbaars (*Gasterosteus aculeatus* L.) (Selection for aggressive behaviour in the three-spined stickleback). *Vakbl. Biol.* 63: 385-388.
- Bakker, T. C. M. & van Oortmerssen, G. A. (1983). Book review of *Biology of the house mouse* (R. J. Berry, ed.), Academic Press, London (1981). *Z. Tierpsychol.* 62: 89-90.
- Bakker, T. C. M. (1977). Allozymen van glucose-6-fosfaat dehydrogenase en 6-fosfogluconaat dehydrogenase bij *Drosophila melanogaster* – temperatuurstabiliteit en invloed van Mg<sup>2+</sup>-ionen. (Allozymes of G6DP and 6-PGD in *Drosophila melanogaster* – temperature stability and effect of Mg<sup>2+</sup>-ions). MSc-thesis, University of Groningen, the Netherlands.
- Bakker, T. C. M. (1976). Enige deterministische modellen over de rol van een genetisch feed-back system in de aantalsregulatie bij muizenpopulaties. (Some deterministic models about the role of a genetic feedback system in the regulation of population size in house mice). MSc-thesis, University of Groningen, the Netherlands.
- Bakker, T. C. M. (1975). Gerichte selectie op agressie bij *Mus musculus domesticus*. (Directional selection for aggression in *Mus musculus domesticus*). MSc-thesis, University of Groningen, the Netherlands.
-