

Publications for Alistair Senior

2019

Crean, A., Senior, A. (2019). High-fat diets reduce male reproductive success in animal models: A systematic review and meta-analysis. *Obesity Reviews*, In Press. [More Information]

Morimoto, J., Senior, A., Ruiz, K., Wali, J., Pulpitel, T., Solon-Biet, S., Cogger, V., Raubenheimer, D., Le Couteur, D., Simpson, S., Eberhard, J. (2019). Sucrose and starch intake contribute to reduced alveolar bone height in a rodent model of naturally occurring periodontitis. *PLoS One*, 14(3), E0212796-Open Access. [More Information]

2018

Mijatovic, J., Capling, A., Cheng, S., Stamatakis, E., Louie, J., Cheung, N., Markovic, T., Ross, G., Senior, A., Brand-Miller, J., Flood, V. (2018). Associations of diet and physical activity with risk for gestational diabetes mellitus: A Systematic review and meta-analysis. *Nutrients*, 10(6). [More Information]

Wahl, D., Solon-Biet, S., Wang, K., Wali, J., Pulpitel, T., Clark, X., Raubenheimer, D., Senior, A., Sinclair, D., Cooney, G., Cogger, V., Simpson, S., Le Couteur, D., et al (2018). Comparing the Effects of Low-Protein and High-Carbohydrate Diets and Caloric Restriction on Brain Aging in Mice. *Cell Reports*, 25(8), 2234-2243.e6. [More Information]

Grueber, C., Gray, L., Morris, K., Simpson, S., Senior, A. (2018). Intergenerational effects of nutrition on immunity: a systematic review and meta-analysis. *Biological Reviews*, 93(2), 1108-1124. [More Information]

Ngo, T., Senior, A., Culina, A., Santos, E., Vlak, J., Zwart, M. (2018). Quantitative analysis of the dose-dependent response of white spot syndrome virus in shrimp. *Journal of Fish Diseases*, 41(11), 1733-1744. [More Information]

Machovsky-Capuska, G., Miller, M., Silva, F., Amiot, C., Stockin, K., Senior, A., Schuckard, R., Melville, D., Raubenheimer, D. (2018). The nutritional nexus: Linking niche, habitat variability and prey composition in a generalist marine predator. *Journal of Animal Ecology*, 87(5), 1286-1298. [More Information]

2017

Lihoreau, M., Charleston, M., Senior, A., Clissold, F., Raubenheimer, D., Simpson, S., Buhl, J. (2017). Collective foraging in spatially complex nutritional environments. *Royal Society of London. Philosophical Transactions B. Biological Sciences*, 372(1727), Art. 20160238-1-Art. 20160238-11. [More Information]

Ribeiro, R., Hirani, V., Senior, A., Gosby, A., Cumming, R., Blyth, F., Naganathan, V., Waite, L., Handelsman, D., Kendig, H., Seibel, M., Simpson, S., Stanaway, F., Allman-Farinelli, M., Le Couteur, D. (2017). Diet quality and its implications on the cardio-metabolic, physical and general health of older men: the Concord Health and Ageing in Men Project (CHAMP). *British Journal of Nutrition*, 118, 130-143. [More Information]

Senior, A., Nakagawa, S., Raubenheimer, D., Simpson, S., Noble, D. (2017). Dietary restriction increases variability in longevity. *Biology Letters*, 13(3), 1-4. [More Information]

Wong, A., Wang, Q., Morimoto, J., Senior, A., Lihoreau, M., Neely, G., Simpson, S., Ponton, F. (2017). Gut Microbiota Modifies Olfactory-Guided Microbial Preferences and Foraging Decisions in *Drosophila*. *Current Biology*, 27(15), 2397-2404. [More Information]

Nakagawa, S., Noble, D., Senior, A., Lagisz, M. (2017). Meta-evaluation of meta-analysis: Ten appraisal questions for biologists. *BMC Biology*, 15(1), 1-14. [More Information]

Campbell, G., Senior, A., Bell-Anderson, K. (2017). Metabolic Effects of High Glycaemic Index Diets: A Systematic Review and Meta-Analysis of Feeding Studies in Mice and Rats. *Nutrients*, 9(7), 1-20. [More Information]

2016

Senior, A., Lihoreau, M., Charleston, M., Buhl, J., Raubenheimer, D., Simpson, S. (2016). Adaptive collective foraging in groups with conflicting nutritional needs. *Royal Society Open Science*, 3(4), 1-15. [More Information]

Senior, A., Lim, J., Adolfsson, S., Lamatsch, D., Nagakawa, S. (2016). Condition and reproductive investment in the western mosquitofish (*Gambusia affinis*): little evidence for condition-dependent sex-biased investment. *Biological Journal of the Linnean Society*, 119(2), 430-435. [More Information]

Cogger, V., Mohamad, M., Solon-Biet, S., Senior, A., Warren, A., O'Reilly, J., Tung, B., Svistounov, D., McMahon, A., Fraser, R., Raubenheimer, D., Holmes, A., Simpson, S., Le Couteur, D. (2016). Dietary Macronutrients and the Aging Liver Sinusoidal Endothelial Cell. *American Journal of Physiology - Heart and Circulatory Physiology*, 310(9), H1064-H1070. [More Information]

Machovsky-Capuska, G., Senior, A., Zantis, S., Barna, K., Cowieson, A., Panyda, S., Pavard, C., Shiels, M., Raubenheimer, D. (2016). Dietary protein selection in a free-ranging urban population of common myna birds. *Behavioral*

Ecology, 27(1), 219-227. [More Information]

Besson, A., Lagisz, M., Senior, A., Hector, K., Nagakawa, S. (2016). Effect of maternal diet on offspring coping styles in rodents: a systematic review and meta-analysis. *Biological Reviews*, 91(4), 1065-1080. [More Information]

Vanderpham, J., Nakagawa, S., Senior, A., Closs, G. (2016). Habitat-related specialization of lateral-line system morphology in a habitat-generalist and a habitat-specialist New Zealand eleotrid. *Journal of Fish Biology*, 88(4), 1631-1641. [More Information]

Senior, A., Grueber, C., Kamiya, T., Lagisz, M., O'Dwyer, K., Santos, E., Nakagawa, S. (2016). Heterogeneity in ecological and evolutionary meta-analyses: its magnitude and implications. *Ecology*, 97(12), 3293-3299. [More Information]

Jones, P., Senior, A., Allibone, R., Closs, G. (2016). Life-history variation in a species complex of nonmigratory galaxiids. *Ecology of Freshwater Fish*, 25(2), 174-189. [More Information]

Senior, A., Grueber, C., Machovsky-Capuska, G., Simpson, S., Raubenheimer, D. (2016). Macronutritional consequences of food generalism in an invasive mammal, the wild boar. *Mammalian Biology*, 81(5), 523-526. [More Information]

Geoghegan, J., Senior, A., Holmes, E. (2016). Pathogen population bottlenecks and adaptive landscapes: overcoming the barriers to disease emergence. *Proceedings of the Royal Society B: Biological Sciences*, 283(1837), 1-9. [More Information]

Machovsky-Capuska, G., Senior, A., Benn, E., Tait, A., Schuckard, R., Stockin, K., Cook, W., Ogle, M., Barna, K., Melville, D., Wright, B., Raubenheimer, D., et al (2016). Sex-specific macronutrient foraging strategies in a highly successful marine predator: the Australasian gannet. *Marine Biology*, 163(4), 1-14. [More Information]

Senior, A., Lihoreau, M., Buhl, J., Raubenheimer, D., Simpson, S. (2016). Social Network Analysis and Nutritional Behavior: An Integrated Modelling Approach. *Frontiers in Psychology*, 7, 1-10. [More Information]

Senior, A., Johnson, S., Nakagawa, S. (2016). Sperm traits of masculinized fish relative to wild-type males: a systematic review and meta-analyses. *Fish and Fisheries*, 17(1), 143-164. [More Information]

Le Couteur, D., Solon-Biet, S., Cogger, V., Mitchell, S., Senior, A., de Cabo, R., Raubenheimer, D., Simpson, S. (2016). The impact of low-protein high-carbohydrate diets on aging and lifespan. *Cellular and Molecular Life Sciences*, 73(6), 1237-1252. [More Information]

Machovsky-Capuska, G., Senior, A., Simpson, S., Raubenheimer, D. (2016). The Multidimensional Nutritional

Niche. *Trends in Ecology and Evolution*, 31(5), 355-365. [More Information]

Geoghegan, J., Senior, A., Di Giallonardo, F., Holmes, E. (2016). Virological factors that increase the transmissibility of emerging human viruses. *Proceedings of the National Academy of Sciences of the United States of America*, 113(15), 4170-4175. [More Information]

2015

Lamatsch, D., Adolfsson, S., Senior, A., Christiansen, G., Pichler, M., Ozaki, Y., Smeds, L., Scharfl, M., Nakagawa, S. (2015). A Transcriptome Derived Female-Specific Marker from the Invasive Western Mosquitofish (*Gambusia affinis*). *PLoS One*, 10(2), 1-16. [More Information]

Senior, A., Nakagawa, S., Lihoreau, M., Simpson, S., Raubenheimer, D. (2015). An Overlooked Consequence of Dietary Mixing: A Varied Diet Reduces Interindividual Variance in Fitness. *The American Naturalist*, 186(5), 649-659. [More Information]

Jarvie, S., Senior, A., Adolph, S., Seddon, P., Cree, A. (2015). Captive rearing affects growth but not survival in translocated juvenile tuatara. *Journal of Zoology*, 297(3), 184-193. [More Information]

Senior, A., Lokman, P., Gloss, G., Nakagawa, S. (2015). Ecological and evolutionary applications for environmental sex reversal of fish. *The Quarterly Review of Biology*, 90(1), 23-44. [More Information]

Senior, A., Charleston, M., Lihoreau, M., Buhl, J., Raubenheimer, D., Simpson, S. (2015). Evolving nutritional strategies in the presence of competition: A geometric agent-based model. *PLoS Computational Biology*, 11(3), 1-24. [More Information]

Nakagawa, S., Poulin, R., Mengersen, K., Reinhold, K., Engqvist, L., Lagisz, M., Senior, A. (2015). Meta-analysis of variation: Ecological and evolutionary applications and beyond. *Methods in Ecology and Evolution*, 6, 143-152. [More Information]

Grueber, C., Knafler, G., King, T., Senior, A., Grosser, S., Robertson, B., Weston, K., Brekke, P., Harris, C., Jamieson, I. (2015). Toll-like receptor diversity in 10 threatened bird species: relationship with microsatellite heterozygosity. *Conservation Genetics*, 16, 595-611. [More Information]

2014

Kamiya, T., O'Dwyer, K., Westerdahl, H., Senior, A., Nakagawa, S. (2014). A quantitative review of MHC-based mating preference: the role of diversity and dissimilarity. *Molecular Ecology*, 23(21), 5151-5163. [More Information]

Schadewinkel, R., Senior, A., Wilson, D., Jamieson, I. (2014). Effects on South Island robins (*Petroica australis*) from pest control using aerially applied 1080 poison. *New Zealand*

Lim, J., Senior, A., Nakagawa, S. (2014). Heterogeneity in individual quality and reproductive trade-offs within species. *Evolution*, 68(8), 2306-2318. [More Information]

Senior, A., Nakagawa, S., Grimm, V. (2014). The Evolutionary Consequences of Disrupted Male Mating Signals: An Agent-Based Modelling Exploration of Endocrine Disrupting Chemicals in the Guppy. *PLoS One*, 9(7), 1-9. [More Information]

2013

Senior, A., Nakagawa, S. (2013). A comparative analysis of chemically induced sex reversal in teleosts: challenging conventional suppositions. *Fish and Fisheries*, 14(1), 60-76. [More Information]

Senior, A., Nakagawa, S., Grimm, V. (2013). Exploring the Evolutionary Consequences of chemically disrupted sexual selection using an agent based model. *8th Biannual Meeting of the Australasian Evolution Society (AES) 2013*, Geelong, Australia: Australasian Evolution Society.

Senior, A., Krkosek, M., Nakagawa, S. (2013). The practicality of Trojan sex chromosomes as a biological control: an agent based model of two highly invasive *Gambusia* species. *Biological Invasions*, 15(8), 1765-1782. [More Information]

2012

Senior, A., Krkosek, M., Nakagawa, S. (2012). Could ecological feedback put the brakes on runaway-sexual-conflict induced evolutionary suicide. *14th International Society Behavioural Ecology Congress*, Lund, Sweden.

Senior, A., Nat Lim, J., Nakagawa, S. (2012). The fitness consequences of environmental sex reversal in fish: a quantitative review. *Biological Reviews*, 87(4), 900-911. [More Information]

2011

Senior, A., Nakagawa, S. (2011). Induced sex-reversal in fish; an evolutionary perspective. *7th Biannual Meeting of the Australasian Evolution Society (AES) 2011*, Townsville, Australia.