

## Multiple weak species in generalised rock-paper-scissors

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We study generalised rock-paper-scissors models with an odd generic number of species. We consider that external conditions affect the ecosystem, weakening part of the species. Using stochastic simulations, we calculate the effects of environmental alteration on the organisms' spatial organisation and population dynamics. We compute the individuals' death risk and show that biodiversity is more jeopardised if species occupying adjacent spatial domains are weakened. Finally, we calculate how species predominance depends on environmental conditions.