Extinction rates and causes studied

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Canadian scientists say habitat fragmentation, over-exploitation and global warming could accelerate the risk of extinction for many species.

Camilo Mora and colleagues at Dalhousie University in Nova Scotia, Canada, warn the viability of many marine and terrestrial species could be impaired due to interacting human activities.

Using experimental microcosm populations of rotifers, a type of zooplankton, the scientists found individually each of the threats caused significant population declines. The study also found the rate of decline was much faster when populations were exposed to more than one threat.

The findings indicate multiple interacting threats are capable of causing rapid population extinction, and all threats should be simultaneously reduced if their synergies are to be avoided and if the current rate of species loss is to be reversed.

"An accelerated decay in biodiversity due to interacting human threats has been long suspected among ecologists and conservation biologists," Mora said. "This study reveals the potential for multiple threats to enhance each (other's) effects. Now we have an idea of the speed at which populations can decay when exposed to several threats."

The research appears in the *Proceedings of the Royal Society B*.