**Abstract**

Every day, foreign species are brought into Singapore, and these foreign species have the potential to become invasive, which will cause significant damage to biodiversity, economy and animal and human health of the invaded environment. Yet, it remains uncertain if ecological invasion is easy. Hence, to address this uncertainty, we build a complex network model of ecological invasion by simulating food webs and ecological invasion across two different ecosystems with the use of Python. In the simulations, with some assumptions and limitations, we randomly generate top-down control food webs and carry out the invasions to determine the consequences of invasion of foreign species. Our major finding is that for two systems sharing similar or identical structures, when the initial population of the invasive species is very small, the whole system will not undergo large changes, but will self-adjust to a stable state with little disturbance. Additionally, isolated predators that invade with a low initial population are unlikely to experience great population increase. However, when there are too many invaders at the same time, the destination ecosystem is thrown out of order. At the same time, we discovered that if the two systems are similar, the invasion of the species tends to be easier. Yet, this model is simplified fails to completely reproduce predator-prey relationships. Therefore, other predator-prey models can be included in the study, while actual data can be used to run the program. For greater accuracy, phylogenetic constraints and environmental factors should also be taken into account.