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## Collective escape in bird flocks

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## Collective Escape in Bird Flocks

1. Complex systems could not exist without the simple components that drive them. It is by studying these components and their interactions that we can achieve greater understanding of these complex systems (*Chapter 1*).
2. Flocks exhibit several types of collective escape under predation, where the specific type of collective escape depends on the collective pattern that precedes it and on the level of threat posed by the raptor. (*Chapter 2, 3*)
3. The resilience of a flock against being split into sub flocks highlights the antipredatory benefits of flocking (*Chapter 2*).
4. The similarity in escape patterns of flocks among bird species, as well as their resemblance to patterns of escape in schools of fish, suggests there are general principles governing collective escape in grouping organisms (*Chapter 2, 3*).
5. Flocks may perform a higher number of patterns of collective escape when birds are of smaller body size, as being smaller makes them more maneuverable and fearful of the predator (*Chapter 3*).
6. The RobotFalcon, a robotic falcon that resembles in appearance and behaviour a peregrine falcon, induces similar responses of collective escape in flocks as a real peregrine falcon. This opens new avenues towards studying patterns of collective escape in flocks under predation (*Chapter 3*).
7. Ethonrobotics can be a successful approach to drive away animals from locations where they conflict with human activities (*Chapter 4*).
8. Waarbij mijn Bachelor en Master vooral in het teken stonden van het vergaren van kennis, stond mijn PhD met name voor het verkrijgen van wijsheid.
9. Everything always seems impossible, until the day it is done (*Nelson Mandela, 2001*)
10. The only thesis that is perfect is a thesis that is finished.
11. Alles verandert, behalve hetgeen dat altijd geweest is.