



Seminar(i)

The role of simple social behavior in tipping points of populations

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When sociality is mentioned, we may all have in mind a group of individuals living together, such as gorillas, dolphins, wolves, bees and we humans. Compared to cooperation, which is a complex process shaped by strong selective pressures, social animals show very simple mechanisms that may have crucial consequences for their populations: social copying and social information. For instance, by copying what others do, social animals enhance information gathering and reduce environmental unpredictability. The relationship between the number of individuals in a group and information gathered is not linear and this may result in critical transitions in decision-making, behaviour and ultimately, in population dynamics. Some of these processes, such as avalanches, cultural and technological revolutions, and collapses in populations, are emergent properties of complex social groups resulting from social feedbacks. I will give some examples of how these feedbacks are important for prospecting, collective dispersal, colonization, and population dynamics, especially under environmental perturbation. I will also show how runaway for dispersal after a constant, cumulative perturbation, may generate tipping points in populations leading to catastrophic shifts and collapses.

WHERE? Seminar room – SS6 (Institutes bldg. floor -1)
<https://links.uv.es/biodiver/DanielOro>

WHEN? Thursday 02/12/2021 – 12:00 h

LANGUAGE? English

