



## Game of Swarms

2019  
ongoing process

*Game of Swarms* is a commissioned artwork project for the Mutant Institute, as part of the programme of Matadero Madrid 2019. It stems from my study on network topologies and the research I am currently conducting with three ethologists: Sara Arganda Carreras and Patricia Nunes Silva, with dynamics of swarms in social insects—ants and bees, respectively—and Audrey Dussutour, on the network dynamics of decision-making in slime moulds. Both ants and bees rely their social architecture on the capacity of forming intelligent collective structures without a clear-cut commanding centre—contrasting to the human political configuration of sovereignties—, while slime moulds function through a distributed vein network of protoplasm—a model without any commanding centre.

*Game of Swarms* will be thus a communication device as well as a register of the artistic research upon

how dynamics of networks in nature can be used as a tool to understand new ways of relationality among humans and non-humans—based on the distribution of agency, rather than the centralisation of powers.

The project draws on theories about the **forces of organisation and control of living organisms within a network** (e.g. biocomplexity and swarm intelligence), and how these forces configure the capacity of carrying out complex tasks through **self-organisation**. This contributes to the discussion about how the world is tackling global problems, such as the environmental crisis and climate change, and how the actors involved in such issues will have responsibility and adapt together to these transformations.



FRAME OF THE 3D VIDEO ANIMATION PRODUCED TO THE EXHIBITON 'ECO-VISIONARIOS', RUNNING FROM JUNE13-OCTOBER 6, 2019

The project is divided in three phases:

1) **interdisciplinary research** on social insects and slime moulds conducted through the scientific lens of the ethologists alongside the social and philosophical accounts for this theory that are translated into my artistic process.

2) **elaboration of a representative narrative** of the theoretical framework

to communicate the content of the research—in which I will develop an audio-visual piece.

3) **performative work** to engage various parts (e.g. audience, research team) to experiment/play the propositions and dynamics resulted from the previous phases. It will be held in the format of workshops during the exhibition at Matadero Institute and a long-term process of collaboration

with the Centro de Innovación en Tecnología para el Desarrollo Humano - itdUPM, Matadero Madrid and the ethologist team cited earlier.

4) **development of an interactive game** that will be an important part to the Mutant Institute's website, which is under construction.