



Subtropical cyclones in future climate conditions over the northeastern Atlantic

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Subtropical cyclones (STCs) are low pressure systems that share common characteristics with extratropical and tropical cyclones. They can have an impact in the society as high as that of tropical cyclones or even hurricanes. In addition, STCs can become tropical cyclones through the tropical transition process.

In this survey, we undertake the key issue of knowing if there will be a change in their frequency of occurrence and/or their intensity, since they can be affected by Climate Change due to a possible improvement of their environment of formation. This work is developed thanks to the ESCENA project from Spain, in which relatively high resolution RCMs (25 km) nested on GCMs are used to simulate future climate conditions in the Northeastern Atlantic basin and southwestern Europe. In this way, STCs can be studied for the first time in future conditions since they are governed by both synoptic (cutoff lows) and mesoscale (convection) processes that actual GCMs could not represent well.