

## **7th International Swift Conference, Trieste 2024**

### **Relationship between Common Swift (*Apus apus*) grounded chicks and meteorological conditions in Toledo (central Spain)**

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Common swifts (*Apus apus*) spend their reproductive period in central Spain during May-August, nesting in small cracks and hollows in tall buildings and other structures. During this period, under Mediterranean climate, drought and temperature conditions are really high. Furthermore, heat waves are becoming more and more frequent and severe. In the city of Toledo and surroundings hundreds of grounded swifts are found. They are likely to be fledglings that have fallen out of the nest before they are ready to fly. Some of them survive and are fostered by the Swift Rescue Network of Toledo, but a large proportion of young individuals are lost for this reason. In this study we analyzed the relationship between the number of grounded chicks rescued and the daily meteorological conditions (temperature records and heat waves) in the last years, applying cross correlation functions and lagged regressions. Results showed a relationship between high temperature peaks (both maximum and minimum) and an increase in the number of swifts falling from their nests. This suggests that the extreme heat within the nesting hollows (usually of stone or brick without insulation), is the cause of either excessing movement, as heat-avoidance behavior, or active fleeing from scorching surfaces, resulting in accidental massive falls. This threat to the species will be more likely under forthcoming climate change conditions.