
(Invasive) alien vertebrates

Assessing the presence of grey squirrel (*Sciurus carolinensis*) in Tuscany: a survey using hair tubes

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Grey squirrel (*Sciurus carolinensis*) is a North American species that has become invasive in parts of Europe, posing a serious threat by competing with the native red squirrel (*Sciurus vulgaris*) and causing its population decline and local extinction in Great Britain, Ireland, and northern Italy.

We investigated the possibility of establishing a new population of *Sciurus carolinensis* in central Italy (Tuscany) conducting a survey in areas where the presence of the grey squirrel had been previously reported and where recent sightings were made. We sampled the study areas by using hair tubes, a non-invasive technique that has proven successful in detecting different small arboreal species, including red and grey squirrels. In one area (Arezzo), where the first sighting of grey squirrel was in 2012, we detected the presence of red squirrel which was well distributed across the study area. We can therefore exclude that a population of concern of the invasive species has established at this location, indicating that the originally introduced individual was not able to form a new growing population.