



Unusual behaviour of cows prior to a large earthquake

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Unusual behaviour of domestic cattle before earthquakes has been reported for centuries, and often relates to cattle becoming excited, vocal, aggressive or attempting to break free of tethers and restraints. Cattle have also been reported to move to higher or lower ground before earthquakes. Here, we report unusual movements of domestic cows 2 days prior to the Marche-Umbria (M=6) earthquake in 1997. Cows moved down from their usual summer pastures in the hills and were seen in the streets of a nearby town, a highly unusual occurrence. We discuss this in the context of positive holes and air ionisation as proposed by Freund's unified theory of earthquake precursors.