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Royal Society Publishing July Highlights

Posted by [Emilie Aime](#) on August 11, 2014



This month's highlights blog features all the best content published in our research journals in July. This month we have: **Elephants only signal when you see them**, **Hummingbird vs. helicopter**, **It's in the bee's genes**, **Hanging in the balance**, **City life causes sickness** and **Ant undertakers remove their dead**.

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Hanging in the balance

Traditionally arm scales or spring balances have been used to measure weight. A paper in *Proceedings A* proposes a new type of scale with flexible arms exploiting the effects of partial frictionless confinement on the equilibria of elastic rods. The authors demonstrate that an elastic rod placed within a tube will adjust itself, by sliding along the sleeve, in order to balance two different end loads and can be used with or without a counterweight. Furthermore, a sensitivity analysis as well as the experiments performed on the prototypes indicate that the deformable arm balance works correctly and that it can perform better than traditional balances in certain

load ranges.