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DUNG BEETLES REVEAL UNEXPECTED THREE-FER



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There are two kinds of guys in the world — no, wait. Sometimes it's three, a new study finds.

It's a tough world out there, and males struggle to be the biggest and baddest. But in some species, small guys that fall behind as youngsters opt out. They develop a different body form and turn to trickery, instead of fighting, to win females.

Now an analysis of body types of 21 dung beetle species finds some with three male forms instead of just two, as expected two, says Mark Rowland of the University of New Mexico in Albuquerque. Body forms of males of *Oxysternon conspicillatum*, and four other species, don't vary along a continuum but become a big-horned alpha (top left), a stubby-horned beta (lower left) or a hornless gamma (lower right) that looks like a female (top right). Studies of related dung beetles suggest male form depends on larval size. (In contrast, male side-blotched lizards and the other well-studied animals with three guy-types inherit their fate along with their genes.)

Animals formerly believed to have only two development-dependant male forms may need another look, Rowland and Doug Emlen of the University of Montana in Missoula report in the Feb. 6 *Science*.

The next step is figuring out how the three kinds of male dung beetles behave. "We can't wait for spring so we can start studying live beetles," Rowland says.

— Susan Milius

Credit: IMAGE CREDIT: M. Rowland and D. Emlen