

Garden Update

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Woolly Bear Caterpillars

Does the woolly bear caterpillar forecast the weather? Stories on websites, podcasts, blogs, newsfeeds, television, and radio like to add to the speculation, but could it be possible this furry caterpillar that rolls up into a ball when disturbed is just that—a furry caterpillar that rolls up into a ball when disturbed?!

These cute fuzzy black and brown banded caterpillars (*Pyrrharctica isabella*) are the immature stage of the Isabella tiger moth. There are two generations per year, but their fall appearance garners the most chat about their prediction capabilities. The size of the black bands, located at the head and rear end, is really indicative of their stage of development and the moisture levels of where they live, not their ability to predict coming weather. Likewise, the density of their fur is dependent on whether they overwinter in a cold part of the country or a milder one.

The woolly bear feeds primarily on grasses and weeds. Despite speculation, their direction of travel is not a predictor of winter weather either. When fall feeding is discontinued, the direction of travel to an overwintering site is random, with some woolly bears passing each other in their travels.

The really amazing thing about woolly bears is they produce a biological antifreeze known as glycerol. Working like the antifreeze in your car, glycerol lowers the freezing point of the woolly bear caterpillar's blood, making it possible to overwinter underneath bark and logs or under fallen leaf and twig debris. The glycerol keeps the center of their cells from freezing and is essential to their survival.

The woolly bear caterpillar is beloved by children, being the subject of much examination and petting. The fuzzy coat the caterpillar wears is not fur at all but setae and helps them to control the rate at which they freeze. The end of each flexible bristle does not contain a toxin, unlike other bristled insects that do.

While not as predictive as some hope to believe, the woolly bear is still a fun animal. Not to be outdone by the groundhog's claim to fame, woolly bear festivals are celebrated in towns in North Carolina, Ohio, Kentucky, Pennsylvania, New York, and Ontario. Caterpillar races, parades, and "official" analyses of the coming winter are just some of the fun!