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Quick Facts

- Joseph Bursey and Lance Graham said they thought the offbeat tribute would help immortalize the late Hannah Floyd.
- The flatworm, named hannahfloydae ("Hannah Floyd's flatworm"), was discovered by Bursey and biology professor Julian Smith in sand along the shoreline at low tide near Emerald Isle and on Oak Island, N.C.

Hannah Floyd's flatworm

ROCK HILL, S.C. - Two Winthrop biology majors who discovered a new microscopic flatworm have named the new species after a promising fellow student who passed away late last year.

Joseph Bursey and **Lance Graham** said they thought the offbeat tribute would help immortalize the late **Hannah Floyd**. The Chester, S.C., native graduated in December 2010 but was killed in a car wreck soon after Christmas.

"Hannah would have gone really far in science," said **Bursey**. "Her parents were ecstatic about this idea. We sent her father a picture of the flatworm and he is going to get it framed."

Bursey had classes with Floyd and admired her willingness to learn and share her knowledge. Her family has already established a scholarship at Winthrop in her memory.

The flatworm, named *hannahfloydae* **("Hannah Floyd's flatworm")**, was discovered by **Bursey** and **biology professor Julian Smith** in sand along the shoreline at low tide near Emerald Isle and on Oak Island, N.C. The two took sand samples containing plenty of different organisms back to the lab, and observed them using confocal laser scanning microscopy to see the flatworms' internal and external anatomy.

Not much is known about this particular flatworm, Graham said. However, this new species is different from all others in the group of flatworms in which it is classified; details of the differences were worked out by Bursey and Graham.

The flatworms can only be seen with a microscope, because they are only about half a millimeter long. However, these tiny animals, although lacking a skeleton, are incredibly active, living as they do in the most dynamic zone of the beach — the so-called **“swash zone”** where the waves are breaking. Like other animals there, they are harmless to humans, and the new species is just one of the many small organisms living between sand grains on marine beaches worldwide. Smith’s lab at Winthrop studies these organisms in collaboration with colleagues at the UNC Institute of Marine Sciences and the University of New Hampshire, Durham.

Graham and Bursey will continue their research with Smith and report on the flatworm's place in evolution and ecology of the North Carolina species this coming January in Charleston, S.C., at the national meeting of The Society for Integrative and Comparative Biology.

Bursey, **Graham**, **Smith** and **Dr. Marian Litvaitis**, their collaborator at the University of New Hampshire, will publish a formal description of the flatworm in the spring.

Bursey graduated in May but continues to volunteer in Winthrop's biology labs. Graham will receive his bachelor's degree in December, and like Bursey, anticipates going to graduate school.

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