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The hummingbird's tongue: a self-assembling syphon JOHN BUSH, FRANCOIS PEAUDECERF, MIT, DAVID QUERE, ESPCI — We present the results of a combined experimental and theoretical investigation of the drinking technique of the hummingbird. Its long, thin tongue is dipped into nectar approximately 20 times per second. With each insertion, fluid rises along the length of the tongue through capillary action. While the tongue is open in cross-section, resembling a sliced straw, experiments demonstrate that surface tension serves to close it, with the tongue's zipping front corresponding to the rising meniscus. Supporting theoretical and analogue experimental models of this novel, natural example of capillary origami are developed and explored.

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