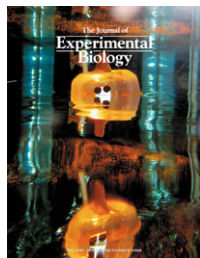


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Cover: An autonomous swimming robot, seen from underwater, and its reflections on the water surface and the floor of the experimental tank. The robot (Tadro) mimics the tadpole larva of a sea squirt by navigating towards a light source using a single eye and a propulsive tail with an artificial notochord. The stiffness of the notochord was evolved over ten generations in a small population of Tadros competing for a simulated food source. Use of autonomous biomimetic robots to test adaptation hypotheses provides biologists with a powerful new approach to model evolutionary scenarios (see article by J. H. Long, Jr and others, p. 4732). Photo by John Long.

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