

Frog species skips tadpole stage

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Shimoga, May 10: Frogs are common everywhere. It is also common knowledge that these amphibians pass through a stage of transformation during their growth process. Tadpoles are hatched from eggs and usually have a short spherical body with feathery gills and a large tail. As days pass, the gills and tail shrink and legs appear. The larva becomes a frog.

But two scientists have identified a frog species in Sagar taluk, Shimoga district, which has skipped the tadpole stage. Researchers K. V. Gururaja and T. V. Ramachandra of Energy and Wetlands Research Group, Centre for Ecological Sciences, Indian Institute of Science, Bangalore have found such a peculiar species in the forests of the western ghats region bordering Shimoga and UK districts. They have published a detailed research paper about this frog variety in Current Science magazine (Vol 90, No 3, Feb 10, 2006). According to their study there are 137 amphibian species in the western ghat region.

The Oriental Shrub Frog, is observed to develop directly from egg to adult. They have documented the direct development from egg to the adult stage. The female laid the eggs on the leaf of a tree between rocky boulders early in the morning. They noticed that the process of growth from egg to tadpole stage was complete within 432 hours (18 days), Within 144 hours, major developmental stages like demarcation of head, mouth, eye, fore limbs and hind limbs take place and the remaining period (that varies in species) is utilized for differentiation of fingers, toes, mouth parts, eyes and overall morphology of the body with utilization of yolk and regression of tail, which supposedly has a respiratory function.

