

First Lungless Frog

Researchers discover lunglessness during dissection of frog.

Posted: May 2, 2008, 3 p.m. EST

Lungless frog (*Barbourula kalimantanensis*). Photo courtesy of David Bickford, National University of Singapore.

The jungles of Borneo have yielded the world's first recorded lungless frog. A research team led by Dr. David Bickford, Assistant Professor with the Department of Biological Sciences at the National University of Singapore, have confirmed that this rare species of frogs called (*Barbourula kalimantanensis*) are completely lungless.

Though the frog was originally described some 30 years ago, the lungless trait was not discovered as they had not dissected the specimen. Dr. Bickford and his team discovered the lunglessness during routine dissections.

Living in clear, coldwater streams, the frog gets all its oxygen through its skin. The frog lives in cold water which has higher oxygen content than warm water. The research team said they believe that the frog has a low metabolic rate and hence needs less oxygen. It is also severely flat compared to other frogs and this would increase the surface area of the skin, allowing it to take in oxygen more efficiently.

The evolution of lunglessness in four-limbed amphibians is exceedingly rare. So far, it is known to occur only in two families of salamanders, and a single species of caecilian, a species of earthworm-like amphibian.

For the full article, [click here](#).