

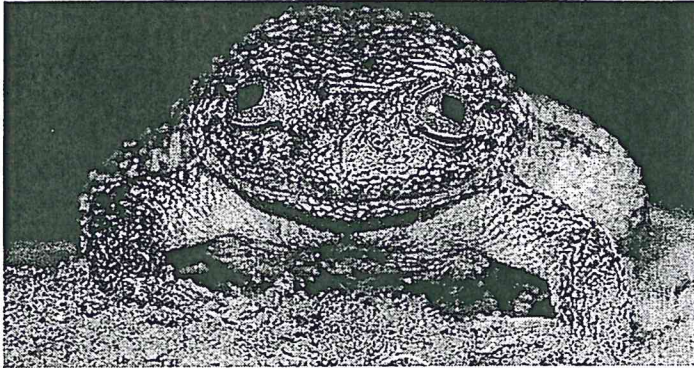
NEWS

SCIENCE

Fascinating New Frogs

Scientists have discovered a dozen new frog species in India

SEPTEMBER 21, 2011 | By Joe Levit



SATHYABHAMA DAS BIJU—SYSTEMATICS LAB, DELHI UNIVERSITY/AP

The Wayanad night frog grows to the size of a baseball.

After years of sitting quietly in dark and damp tropical forests, shining flashlights under rocks and across riverbeds, and listening carefully for frog calls in the night, a team of Indian scientists have something to croak about. They confirmed the existence of 12 new kinds of night frog by description, as well as genetics.

The new species include three particularly interesting frogs. The first, the meowing night frog, has a croak that sounds like the call a cat would make. The second, the jog night frog, is the only known species of frog whose males and females both watch over the eggs. The third frog, the Wayanad night frog, grows to the size of a baseball. "It's almost like a monster in the forest floor, a huge animal for a frog, leaping from one rock to another," says the project's lead scientist, Sathyabhama Das Biju of the University of Delhi.

Discovering Amphibians Again

Beyond the 12 new species of frog, the team also rediscovered three known species. One of them, the Coorg night frog, was originally described 91 years ago. But scientists had ignored them for some time because they thought the animal was already extinct.

The discoveries raise the known number of frog types in India to 336. Biju, who is credited with discovering dozens of new Indian frog species during his 35-year career, estimated that this total is only about half of what is in the wild. He noted that none of India's amphibians are yet being studied for biological compounds that could be of further use in science.

"We first have to find the species, know them and protect them, so that we can study them for their clinical importance," Biju says.

Conservation Concerns

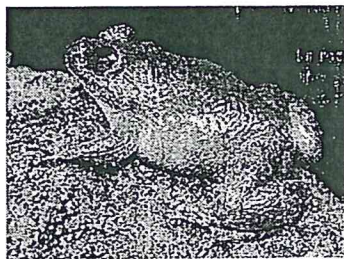
Night frogs are extremely hard to find. They come out only at dark and during the monsoon season and live in either fast-flowing streams or on moist forest ground. The team hopes their inrepid efforts will bring better exposure to India's amphibians and their role in gauging the health of the environment.



SATHYABHAMA DAS BIJU—SYSTEMATICS LAB, DELHI UNIVERSITY/AP

The jog night frog is the only known type of frog where both the males and females watch over the eggs.

Unfortunately, conservation in India has basically focused on the two most charismatic animals — the elephant and the tiger. For amphibians there is "little interest, little funding, and frog research is not easy."



SATHYABHAMA DAS BIJU—SYSTEMATICS LAB, DELHI UNIVERSITY/AP

The meowing night frog of the Western Ghats has a croak that sounds like a cat's call.

Frogs are extremely important indicators not just of climate change, but also pollutants in the environment," says Biju.

According to the Global Wildlife Conservation, 32 percent of the world's known amphibian species are threatened

with extinction. The threat is mostly a result of habitat loss or pollution.

Many of the newly found frogs in India are rare and live in only one area. For these reasons, they will need rigorous habitat protection, explains Biju.

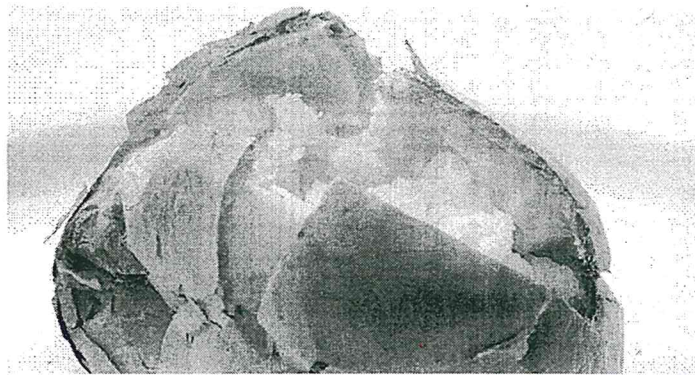
NEWS

HEALTH

Hot Potato Issue

The U.S. Senate is blocking a USDA proposal to limit spud servings in schools

OCTOBER 19, 2011 | By Kelli Plasket



KEVIN SUMMERS—GETTY IMAGES

A Senate vote blocked the USDA from placing limits on the amount of vegetables served in schools, including the starchy potato.

Schools are still free to pass the potato. On Tuesday, the U.S. Senate voted to block a proposal by the U.S. Department of Agriculture (USDA) that would have limited the amount of potatoes and other starchy vegetables served in schools. The USDA had wanted to make the changes to the federal school lunch program. It would have limited the amount of starchy vegetables to two servings per student per week, or about a cup. And those starchy veggies that are high in carbohydrates would also have been banned from school breakfasts. The limit aimed to reduce the amount of fried potatoes, such as french fries and tater tots, served in schools.

The Senate blocked the USDA's proposal by amending, or changing, a spending bill that included funding for the department. The amendment blocks the USDA from putting any limits on the amount of servings of potatoes or other vegetables in school lunches. Senator Susan Collins of Maine, a spud-growing state, sponsored the amendment. "[USDA's] proposed rule would have imposed significant and needless costs on our nation's school districts at a time when they can least afford it," Collins said.

Food Fight

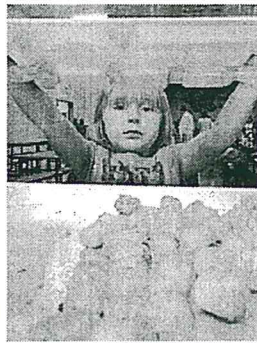
Those in favor of a potato limit say that children get enough potatoes already and should be encouraged to try other vegetables. The group Center for Science in the Public Interest pushed for the restrictions.

"USDA's proposal was about helping kids to eat a very wide variety of vegetables, and I think that point has been lost in all this," said the Center's Margo Wootan.

"Other vegetables have a hard time competing with potatoes."

The proposed change upset potato growers, who believe potatoes were being unfairly targeted. Some schools have criticized the USDA's attempt to tell them exactly what foods they can or can't serve. Critics say the USDA should focus on advising schools on how to prepare the potato instead. Potatoes can be a good source of fiber and potassium. Many schools already prepare french fries with less grease and serve potatoes in healthier recipes.

The USDA is expected to release a final list of guidelines for the federal school lunch program next year. Senator Mark Udall of Colorado, another potato-growing state, also sponsored the amendment that blocked the spud limit. "This amendment seeks to ensure flexibility for schools to provide nutritious and affordable school meals," he said.



SHANNON DINNIN—AP

For now, schools can still serve tater tots to students after the U.S. Senate blocked a proposed potato limit.

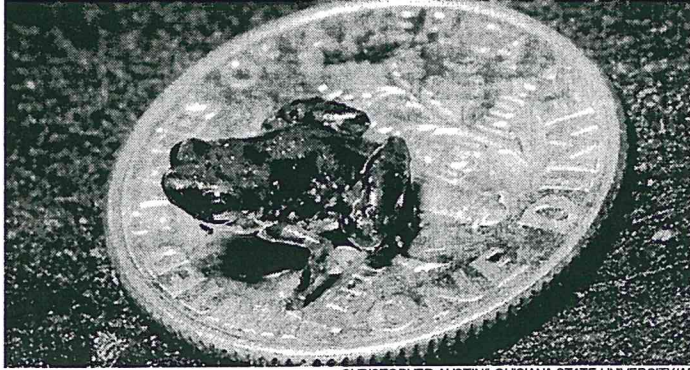
NEWS

SCIENCE

World's Smallest Frog

Scientists in Papua New Guinea discover the tiniest vertebrate

JANUARY 17, 2012 | By Joe Levit



CHRISTOPHER AUSTIN/LOUISIANA STATE UNIVERSITY/AP
This frog sits on a U.S. dime. It is the world's smallest creature with a spine. The frog was found near the village of Amau, in Papua New Guinea. It is named after the village.

In the tropical forests of Papua New Guinea, scientists have found a truly tiny frog. The adult frogs are just three-tenths of an inch long, which makes them a millimeter or so smaller than an itty-bitty fish found before on the Indonesian island of Sumatra.

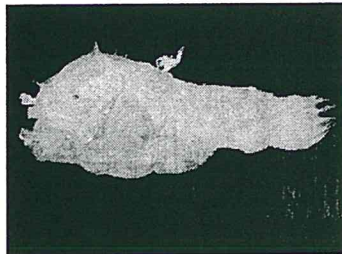
The frogs can sit on a dime and still have space available to invite a few friends along. The little frogs are now the world's smallest vertebrate, or animal with a backbone. An article reporting the finding was published last week in the online science journal PLoS One.

Finding The Tiny Frog

Louisiana State University herpetologist Christopher Austin and graduate student Eric Rittmeyer discovered the miniature frog in 2009, during a trip to Papua New Guinea to study the wide variety of life on the island. Herpetologists study amphibians, which includes frogs, toads, salamanders and newts.

Finding the world's smallest frog happened by accident. The researchers were recording the calls of frogs at night near the Amau River in eastern Papua New Guinea, when they heard a bunch of high-pitched sounds. "This frog has a call that doesn't sound like a frog at all. It sounds like an insect," said Austin.

The calls were coming from all around them, and it took the two researchers a while to figure out that the sounds were coming from the ground. They thought they would find an insect. What they got instead surprised them.



T.W. PIETSCH, BURKE MUSEUM, UNIVERSITY OF WASHINGTON
This is a female anglerfish. The tiny parasitic male attached to her back is the smallest vertebrate in the world.

"We found it by grabbing a whole handful of leaf litter and putting it into a clear plastic bag and very, very slowly going through that litter leaf by leaf by leaf until we saw that small frog hop off one of those leaves," said Austin.

Taking pictures of the frog also proved difficult. The frogs can leap 30 times their own length, and at first they weren't posing for a photo. After hopping around for some time, though, the frogs stopped long enough for Austin to get the shot. Even so, he had to enlarge the photos in order to describe the new species.

The scientists also found another new little frog species in New Guinea. Austin estimated that they found 20 previously unknown species on the island of New Guinea. (Half the island forms part of Indonesia; the other half is the independent country Papua New Guinea.)

Still Smaller?

Claims about the tiniest animal with a spine are still up for debate. Theodore Pietsch is an ichthyologist (ick-thee-ah/eh-jist)—a scientist who studies fish—at the University of Washington. In 2006, he described a species of deep-sea anglerfish that are about 2 mm smaller than the frogs. But only the males are that small. They don't have stomachs, and they live as parasites on larger 1.8-inch-long female fish. Austin knew about the anglerfish, but felt that average species size—which would include both the females and males of the species—would make a better comparison.

Either way, both scientists would probably agree that finding the smallest spine isn't the most important discovery. Instead it is understanding that lots of tiny frogs, at least 29 species worldwide, live in a unique habitat and eat creatures even tinier than they are.

"We realized these frogs were probably doing something incredibly different from what normal frogs do — invading this open niche of wet leaf litter that is full of really tiny insects that other frogs and possibly other creatures weren't eating," said Austin. And that's how a tiny frog can be a big discovery.