Primate species: new slow loris found in Borneo

A new species of small nocturnal primate has been discovered by scientists in Borneo.

The primate is a type of slow loris, a small cute-looking animal that is more closely related to bushbabies and lemurs than to monkeys or apes.

Uniquely among primates, they have a toxic bite, belying their appearance.

Two previously known subspecies of slow loris have also been accorded full species status.

Details of the discoveries are published in the American Journal of Primatology.

The new species of slow loris, named *Nycticebus kayan*, has gone unrecognised until now, in part due to its nocturnal lifestyle.

Animals that are active by night often rely less on visual clues, and can therefore appear more similar to one another.

So the scientists had to look hard to discover the differences between the new species.

An international team of researchers, led by Professor Anna Nekaris of Oxford Brookes University in the UK, and Rachel Munds from the University of Missouri in Columbia, US, surveyed slow lorises living in the forests of Borneo and the Philippines.

They focused on studying the primates’ facial markings, which take the appearance of a mask, with the eyes being covered by distinct dark patches and the heads by varying patterns.
Part of Prof Nekaris’s research was filmed by the BBC programme Natural World, which followed members of the team as they conducted surveys.

This research has revealed there are actually four species of slow loris in the Philippines and Borneo, each with their own, subtly different but distinct head markings.

Originally there was thought to be just a single species, called *N. menagensis*.

Two of these new species, *N. bancanus* and *N. borneanus*, were previously considered subspecies of *N. menagensis*.

While, *N. kayan*, is new to science.

"In Borneo in particular, from where three of the new species hail, this will mean that three new lorises will be added as threatened to some degree on the IUCN Red List of threatened species," says Prof Nekaris.

"With more than 40% of the world's primates already threatened with extinction, this brings the toll even higher."

Outside of Borneo and the Philippines, four other slow loris species are known, living across south and southeast Asia.

All have a difficult relationship with humans.

They are the only primates with a toxic bite, secreting the toxin from glands in their elbows.

Slow lorises lick this toxin, and mix it with their saliva. They then use it when they bite, or to coat the fur of their offspring, possibly as a way to deter predators from attacking their young.

The toxin is powerful enough to potentially cause fatal anaphylactic shock in people.

But the slow lorises' cute appearance also makes them a favoured target of the pet trade.

Captured animals often have their canine and incisor teeth pulled out before being sold on as pets, in a bid to protect their potential owner.

Harming the animals this way, though, can quickly lead to their death, as the toothless primates are unable to feed properly.

The discovery that more slow loris species exist also has implications for their survival.

"Well-meaning groups rescue lorises and rarely follow proper guidelines when releasing them back to the wild," says Prof Nekaris.
"That means that the wrong species of loris has found itself in many a new place throughout Asia, if they have survived the traumatising practice of hard release to the wild in the first place."
COLUMBIA MISSOURIAN

State funding, health care on UM System wish list

By Dan Burley, Stephanie Ebbs
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COLUMBIA — In the spirit of the holiday season, UM System President Tim Wolfe recently presented his "wish list" of issues he wants the system to tackle.

The new year also brings federal and state legislation outside the system's control. Decisions on health care reform, state funding and a potential "fiscal cliff" will adjust the system's plans.

On a campus level, students, faculty and staff have their own set of hopes for the UM System's agenda in 2013.

Wolfe completes his first year as system president in February. Here's a look at legislative issues with the potential to impact the system, Wolfe's wish list introduced last week at the UM System Board of Curators' meeting and issues others want to see on the agenda.

Legislative issues

On Dec. 6 and 7, curators heard presentations on several state and federal government decisions that will affect the system.

Health care

Health care reform under the Affordable Care Act will influence the system as an employer and a health care provider. One change the system is exploring is whether a health insurance exchange run by the federal government would benefit its employees.

The curators also are considering a plan to expand coverage to "sponsored adult dependents," which would include domestic partners and other adults living with a university employee for more than 12 months who aren't immediate family members — one's partner or mother-in-law, for example.
This plan is considered to be more inclusive and is expected to add 200 people to the university's benefits plan at an estimated cost of about $1.2 million per year, said Betsy Rodriguez, system vice president for human resources.

**State funding**

The Missouri legislature's Joint Committee on Higher Education is working to devise a formula that would allocate funding to universities and colleges to reward them for performance in certain areas.

Wolfe is considering a plan that would redistribute a small percentage of state funding to the system based on how well each campus meets its strategic priorities starting in 2015.

The curators are considering tuition and fee increases to offset unchanged state funding. Since 2001, state funding to the system has decreased more than 10 percent. In turn, the system has relied more on income from tuition and fees, according to system documents.

The curators heard a preliminary report that outlined potential tuition and fee increases for the 2014 fiscal year. Under these recommendations, the system would raise tuition by at least the inflation rate — projected to be 2 percent — at all four campuses. The board is scheduled to vote on the increases in January.

**Fiscal cliff**

If lawmakers in Washington don’t reconcile their differences by the end of the year, the UM System would feel the effects of the "fiscal cliff" — a series of automatic reductions in government spending combined with expiring tax cuts.

As part of the spending reductions, vital segments of the UM System, including federally supported research and student aid programs, stand to lose more than $23 million, according to reports released by the White House and the UM System Office of Government Relations.

In July, Wolfe and the four UM chancellors, along with nearly 150 other university chancellors and presidents, signed a letter to President Barack Obama and Congress that encourages bipartisan, comprehensive budget reform to avoid the federal cuts.

Wolfe has visited with Missouri's legislators and shared the potential damage of federal cuts to the UM System, Steve Knorr, system vice president for government relations, said at the curators' meeting.
Robert Duncan, vice chancellor for research at MU, has collaborated with research officers across the country to lobby for a budget solution.

"We're doing everything we can as an industry," he said in an interview earlier this month. "If we circle the wagons and speak with a single voice, we have a lot greater impact. What impact that will have on our lawmakers and president — when it comes to making decisions — that's what we will find out in the next month."

Wolfe's wish list

**Filling the two empty seats on the Board of Curators:** The nine-member board has seven curators, with no curator representing the eighth or ninth districts.

The district eight seat, which represents southwest Missouri, has been open since January. The ninth district, which includes St. Charles County and Columbia, has been without representation since November 2010.

Gov. Jay Nixon is responsible for appointing curators, who are then subject to approval by the Missouri Senate.

**Communicating higher education funding issues to rural Missourians:** Proposition B, which would have increased the tax on tobacco, was defeated by more than 2 to 1 in rural counties in November, according to system documentation. It was expected to create between $280 million and $420 million, with 80 percent going toward funding public education.

Wolfe said he wants to educate people on the benefits that investing in education offers, such as job growth.

**Working toward more Missouri graduates:** Improving college-readiness for incoming students and retention for returning students to contribute to Obama’s goal that 60 percent of Americans have a college degree.

At 54.5 percent, Missouri ranks 24th out of 50 states and the District of Columbia in the percentage of students who earn a bachelor's degree within six years from a public school, according to The Chronicle of Higher Education.

**Spending state funding wisely:** Wolfe said he wants to show the Missouri General Assembly that the UM System is a smart investment by "improving efficiency."
Some efforts to reduce spending and increase revenue included eliminating positions, combining academic programs and deferring scheduled maintenance, according to system documents.

Enrollment growth also boosted the system’s income from tuition and fees.

The system saved more than $80 million in 2012 by reducing costs and increasing revenue, according to a news release from the system, and has saved more than $410 million since 2009.

Adding to the agenda

Students, faculty and staff have items they’d like added to the agenda, which they shared through a combination of interviews and responses to a Public Insight Network query.

Renewing focus on sustainable energy: Coal Free Mizzou and other student advocates have attended two curators meetings to discuss moving the system away from a reliance on fossil fuels. They met with Wolfe and MU Chancellor Brady Deaton earlier this fall, marking the first time the organization sat down with university leadership.

At the most recent curators meeting, Wolfe said the system is supporting transitions to clean energy at all four campuses, including the use of bio-fuels at the MU Power Plant and the Geothermal Energy Project at Missouri University of Science and Technology.

Advocating for state funding: Xavier Billingsley, president of the Missouri Student Association at MU, said he wants the system to take a more active role advocating for alternative sources of funding, like the now-defunct tobacco tax.

Zach Toombs, director of student communications, said in an email that MSA would also like the curators to approve a diversity course requirement, which failed a faculty vote at MU last year.

Faculty raises and deferred maintenance: Newly elected MSA President Nick Droege said he would like to maintain the system’s operating budget as well as request $17.6 million to make faculty and staff salaries more competitive.

Droege supports using a new bond initiative to renovate buildings on all four campuses. In the past 10 years, the system has put off nearly $1.3 billion of maintenance and repairs, according to system documents.
Discussing shared governance: Harry Tyrer, chairman of the MU Faculty Council, said the council wants to continue discussions of how decision-making authority is divided among administrators and faculty.

Faculty members and administrators began to express concern about the system’s governance after Wolfe announced his intention to close the University of Missouri Press in May.

The council hopes to move a resolution to the curators in April that would give faculty a larger role in budget decisions, Tyrer said.

Focusing on important issues: Tyrer, a professor of electrical engineering at MU, said he would like to see the Intercampus Faculty Council focus on more important issues such as the budget. The council consists of faculty members from all four campuses and is the only source of faculty input at the system level.

Tyrer said members spend some of the time at their monthly meetings discussing trivial issues such as how to computerize basic paperwork.

Making college accessible to low-income and undocumented students: Two students from the University of Missouri-St. Louis expressed concern about student loan debt and said the system should offer more need-based aid.

Courtney Hayes, a junior in political science, said the system should provide more information to low income students to prevent them from taking on unmanageable debt.

Hayes also said the system should consider accepting undocumented students with strong academic backgrounds.

Recognizing mental health problems: Christy Hutton, coordinator of outreach and communications for the MU Counseling Center, said she wants the system to focus on training faculty and staff to recognize mental health problems in students, which would improve retention.

Supervising editor is Elizabeth Brixey.