Last Chance to Save the 'Panda of Indochina'
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ECOLOGY

Last Chance to Save the 'Panda of Indochina'

Is it possible to throw a lifeline to a creature no scientist has ever glimpsed in the wild? "Some days it feels like trying to strategize conservation of unicorns," says William Robichaud, a zoologist based in Laos. But that's exactly the challenge confronting experts who have kicked off an 11th hour effort to prevent the saola, a rare ungulate, from slipping into oblivion.

At an emergency meeting in Vientiane last month, Robichaud and colleagues hammered out a set of measures that, if implemented within the next year, could give the saola a shot at survival. These include intensified removal of poachers' snares and efforts to shed light on the mysterious beast's biology. A central challenge is to elevate saola in the public consciousness—both on the animal's home turf in Laos and Vietnam and in the minds of donors, as funding for saola conservation is almost nil. "We need to sell the saola as the panda of Indochina," says Barney Long, a conservation biologist with the World Wide Fund for Nature (WWF). The animal, which resembles an African desert antelope, "is incredibly charismatic and stunningly beautiful," says Robichaud. "People just don't know it yet."

Real-world unicorn. An aggressive effort to rein in poachers may be the last, best hope for the saola.

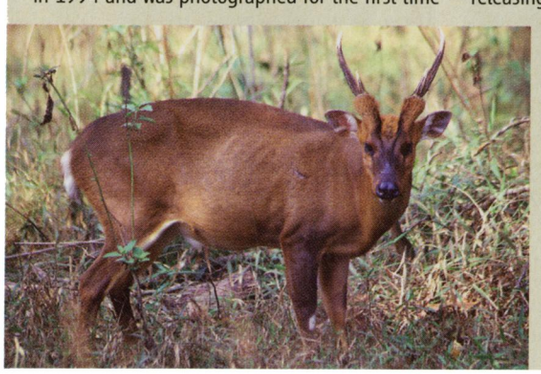
To wildlife biologists, the saola is the stuff of legend (*Science*, 1 December 2006, p. 1380). It was the first large mammal discovered in a half-century when researchers described the species (*Pseudoryx nghetinhensis*) in 1992 based on pairs of chestnut-brown, tapering horns hanging in homes in Vietnam's Annamite Mountains. The expansion of settlements and roads have allowed poachers to press deeper into remote Annamite habitat, where they set snares for all manner of wildlife. Villagers have been reporting fewer and fewer saola sightings, suggesting that the species is fading from the scene. The total population is at most a few hundred individuals—and may be as low as a few dozen, says Robichaud. The few saola kept in captivity all perished within weeks.

With the doomsday clock ticking, the Saola Working Group (www.asianwildcattle.org/awc_s.shtml) of the International Union for Conservation of Nature's Species Survival Commission met to figure out how to

DAM PROJECT REVEALS SECRET SANCTUARY OF VANISHING DEER

When Ulrike Streicher set out last year to rescue wildlife on the Nakai Plateau of northern Laos, nearly half of which was flooding as the reservoir behind the Nam Theun 2 Hydroelectric Project's dam filled, she expected to encounter the occasional curiosity. But in just 4 months, her team captured an astounding 38 large-antlered muntjacs—a rare deer that was discovered only in 1994 and was photographed for the first time by a camera trap in the dam area in 2007. "We had our hands on more large-antlered muntjacs than anyone had ever even seen," says Streicher.

The hands-on experience could be a boon for efforts to study and protect Indochina's more exotic denizens. Streicher's mostly Lao team attached radio collars to several large-antlered muntjacs (*Muntiacus vuquangensis*) before releasing them in habitat away from the reservoir. Although the animals aren't presently being monitored—that was beyond the Nam Theun 2 Power Company's mission—"it was a great dress rehearsal for learning how to track animals like the saola," says Streicher, a wildlife veterinarian based in Da Nang, Vietnam, who headed the NTPC wildlife-rescue program.



Jackpot. An amazing 38 large-antlered muntjacs were rescued in Laos.

From June 2008 to February 2009, Streicher's group rescued 294 animals in Nakai's Thousand Island area, including some pygmy loris and unexpected critters such as the colugo, only the second field record of this gliding mammal in Laos. In a July review, the World Bank commended the rescue program as "impressive." "Uli and her team did a fantastic job, under often difficult conditions," says Laos-based zoologist William Robichaud.

The fate of the large-antlered muntjac—those Streicher released and the population in general—is not rosy. Unlike the saola (see main text), this heaviest of muntjac species—adult males weigh up to 60 kilograms—is a favorite of hunters. "We tried to be secretive about where we brought captive animals," Streicher says. "But when you run into a bunch of locals and you are carrying a couple cages, it doesn't take much imagination to figure out what you're up to." Streicher hopes outside experts will pick up where NTPC left off and join the quest to save the large-antlered muntjac. Otherwise, she warns, "it could be a big scientific loss." –R.S.

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prevent the species from sliding quietly into extinction. The group, headed by Robichaud, concluded that saola "cannot be saved" without stepping up the pace of snare removal and curtailing hunting with dogs.

Experts say there are some grounds for optimism. WWF and Vietnam's Forest Protection Department recently launched a snare-removal campaign in newly protected saola habitat in the Thua Thien Hue and Quang Nam provinces. But the limited effort is "far from perfect," says Long, who is hoping a donor will materialize to fund intensive snare removal. In the meantime, he says, "snares remain a huge problem across Vietnam." In Laos, the Nakai-Nam Theun National Protected Area established an enforcement division this year—"a great ray of hope for the species," says Robichaud. But much of the saola's presumed range in Laos lies outside of national protected areas. How to safeguard those saola, Robichaud says, is "a tough nut to crack."

The working group also called for improved methods of detecting saola. "The dearth of knowledge of saola ecology, behavior, and current distribution is a significant constraint to planning conservation action," says Robichaud. One approach is to set out more camera traps—an expensive proposition. Another is to train dogs to sniff out saola dung, which could be identified by DNA analysis. But with only one or two certain samples of saola dung on hand from past captives, that's iffy.

The best hope for rescuing one of the world's most critically endangered mammals may be the most direct: Bring poachers to heel. "Unlike so many other endangered species in Asia, the saola has no high price on its head," says Robichaud, primarily because it has no value in traditional medicine and is not an important source of bush meat. "This should make conservation of saola relatively straightforward," he says.

"Donors like winnable causes," Robichaud says. And what could be more enticing than saving a real-life unicorn? **–RICHARD STONE**

JAPAN

How Will Science Fare?

TOKYO—In an annual rite of summer, the education ministry's budget requests are trimmed by advisory bodies, politicians, and the powerful finance ministry. This year, there is a new twist: The newly elected Democratic Party now has responsibility for finalizing the budget—and no one knows how R&D will fare.

New era. Yukio Hatoyama, the Democratic Party chief, wants to keep tabs on Japan's bureaucracy.

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The Democratic Party's platform keys in on the importance of research. But the party also promised to cut wasteful governmental spending, without being specific, and party politicians have called for reining in bureaucracy. "It's very difficult to say at this stage what to expect," says Reiko Kuroda, a biochemist at the University of Tokyo and a former member of the Council for Science and Technology Policy, the nation's top science advisory body.

The budget request, released on 28 August, includes a new $110 million program to hire graduate students as teaching assistants; a 17% increase, to $2.4 billion, for grants-in-aid for scientific research that supports individuals and small groups; a 29% increase, to $98 million, in funding for regenerative medicine; and a 35% jump, to $2.8 billion, for the space program. The Democratic Party, which has called for more green-energy schemes, might back the ministry's plan to expand R&D into making Japan a low-carbon society by 75%, to $506 million.

Hidefumi Kobatake, president of the Tokyo University of Agriculture and Technology, points out that the ousted Liberal Democratic Party squeezed support for national universities by about 1% in each of the past several years; the Democratic Party has pledged to put a stop to the cuts. "We'll be extremely thankful if that happens," Kobatake says.

The ministry has not yet totaled up science-related spending, and at best the overall science budget will increase "by a few percent," says Shuichi Sakamoto, director for budget planning for the ministry. The budget will likely be finalized by December; it takes effect next April.

–DENNIS NORMILE

ScienceInsider

From the *Science* Policy Blog

The much-ballyhooed report on the future of the **U.S. human space program** was submitted to the White House on 1 September, or so rumor has it. The so-called Augustine report is the latest in a series of analyses of pressing issues affecting the research community—scientific integrity and biosecurity being the others—that the Obama Administration has chosen to keep under wraps.

In the most comprehensive report yet on **geoengineering**, Britain's Royal Society calls for more research but cautions that the many impacts of global warming won't be solved by any single technology. Many approaches could have substantial side effects, such as worsening drought.

India's moon mission, **Chandrayaan-1**, has come to a shuddering and unexpected halt. The Indian Space Research Organisation lost all contact with the $100 million spacecraft on 29 August after a catastrophic failure of its electronics.

The U.S. Coast Guard wants feedback on a draft regulation designed to prevent **invasive species** from entering U.S. waters in the ballast water of ships. The Coast Guard says it "will work to elevate the priority" of research to figure out how effective the measure will be.

Citing new test results, Geron Corp. expects to resume its phase I clinical trial using **embryonic stem cells** to treat spinal cord injury. The U.S. Food and Drug Administration halted the trial after some animals developed small cysts. Spinal cord patients routinely develop much larger cysts.

The Department of Veterans Affairs (VA) announced on 27 August it would opt out of a controversial research project on **Gulf War illness**, citing "persistent noncompliance and numerous performance deficiencies." UT Southwestern officials "strongly disagree with the VA's characterization of the facts."

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