



Arson Strikes Research Labs and Tree Farm in Pacific Northwest

As *Science* went to press, no group had yet claimed responsibility for the two blazes, which occurred around 3 a.m. on Monday, 21 May. But an undamaged building at the Oregon tree farm was spray painted with the letters "ELF" along with the message "You cannot control what is wild." ELF stands for the Earth Liberation Front, a loose-knit ecoterrorist collective that has claimed responsibility for some of the many illegal acts reported in recent years (see table).

RECENT ATTACKS ON U.S. RESEARCH FACILITIES/TEST PLOTS

For the past 15 years, Bradshaw has tried to pinpoint genes that control branch development, resistance to disease, and tolerance to cold temperatures, as well as other environmental stresses. In one soon-to-be-published study, for example, Bradshaw and his colleagues identified the general region in poplar tree DNA that contains a gene that confers resistance to poplar leaf rust, a fungal infection that kills the tree's leaves and stunts its growth. The group hopes to isolate the gene and learn what it produces to fight off the fungus. Bradshaw says he uses only

Russia's
leaky
legacy



More than
tone-deaf



Keeping the
United States
BSE-free



traditional plant-breeding methods in these and other studies. But an ELF spokesperson has criticized Bradshaw for accepting research funds from tree-farming companies, saying that the results could be used to genetically engineer trees.

The apparent attempt to snuff out Bradshaw's research claimed some of the greenest research on the UW campus. In addition to Bradshaw's work on poplars, projects at the center focus on restoring damaged wetlands, conserving rare and endangered plants, charting life's recovery following the 1980 eruption at nearby Mount St. Helens, teaching people to grow their own food in backyard gardens, and understanding the genetics of how new species develop. "All of that is collateral damage to my work on poplars," Bradshaw says.

Certain items lost to the fire were irreplaceable. One, a tissue culture collection of 100 endangered showy stickseed plants, was particularly distressing to lose, because only about 300 plants are believed to exist in the wild. In a library adjacent to Merrill Hall, about 20% of the books—many of them rare and out of print—were also destroyed, according to Tom Hinckley, an ecosystem scientist and head of the horticultural center.

Despite these losses, the university has made it clear that the attacks won't stop research and outreach efforts. Hinckley says officials have promised to "do what it takes to get us back on our feet." Merrill Hall's research and office space will be rebuilt, he adds; in the meantime, faculty members and students are moving into temporary research and office space. "Even though [the fire] was intended to slow or stop work, it won't have that effect," says Bradshaw.

As for future attacks, Brouelette says that his office will likely step up security at agricultural research sites. But he and others say that the value of additional protection must be weighed against the need for a public institution to remain accessible. "A fortress mentality doesn't serve academic freedom well," says Hinckley.

Welcome or not, such a feeling is already beginning to permeate agriculture science, says Strauss. "It's terrible. There is less openness, less willingness on the part of researchers to discuss their work, and "therefore less ability to discuss merits and concerns to others," says Strauss. Teaching suffers as well, he adds, because concerns about security have curtailed the presence of undergraduates at field sites. Still, he and

others believe that the work must continue. "The alternative is to let terrorists dictate what we do," says Strauss.

—ROBERT F. SERVICE

PALEONTOLOGY

New Dig at Old Trove Yields Giant Sauropod

When Allied bombers descended on Munich in the spring of 1944, they destroyed much of the city—including the Bayerische Staatssammlung museum. Among the treasures reduced to rubble were Cretaceous bones collected from Egypt by Ernst Stromer von Reichenbach. More than 50 years later, when Josh Smith, a grad student at the University of Pennsylvania in Philadelphia, was casting about for a Ph.D.

topic, he drew up a wish list—places to dig that weren't being actively excavated but had a history of interesting discoveries. Topping his list were the sites

known. It also marks the first time a sauropod has been linked to a mangrove-rich habitat. The locality was highly diverse during this part of the Upper Cretaceous, about 95 million years ago. So even more important than the sauropod itself is the reopening of Stromer's sites: Experts say that having more land species from this part of Africa will help nail down ideas about the breakup of the supercontinent of Gondwana.

Stromer first arrived in Egypt in 1911. After trekking 390 kilometers southwest of Cairo by camel, his field party searched a broad expanse known as the Bahariya Oasis. During the Upper Cretaceous, the area appears to have been a coastline bordered by mangrove swamps and tidal channels. After a few field seasons, Stromer had found as many as 40 genera of fish, crocodiles, dinosaurs, and other creatures. But all of

the terrestrial vertebrates he brought back to Germany were destroyed in World War II, except for two skulls smuggled out by curators.

Smith and his party faced a problem in trying to find the source of the fossils: Stromer hadn't left directions or even published any maps or photos of the sites he quarried. Still, they had one clue: A friend of a team member located old scientific literature in Cairo with descriptions of prominent landforms in the Ba-



Luck. While driving through the desert, the team came across a partial skeleton, including this 1.7-meter upper-arm bone, from a new sauropod.

discovered by Stromer.

In February 1999, Smith set out to find Stromer's sites. It required sleuthing and luck, but on page 1704, Smith and his colleagues describe the first land vertebrate to be excavated from the sites since Stromer published his last monograph in 1936. Their find, *Paralititan stromeri*, is a new genus of sauropod dinosaur, estimated from its incomplete skeleton to be the second most massive

known. It also marks the first time a sauropod has been linked to a mangrove-rich habitat.

Then came a stroke of luck. Smith entered the wrong coordinates into his Global Positioning System receiver. So when the scientists set out in their 1998 Toyota Land Cruiser—no camels for this group—they ended up far from the landmarks. To get oriented, Smith stuck his head out the passenger window and spotted a large sauropod bone.