

ON THE RECORD

“We tend to eat a lot of fried foods...most restaurants don't have healthy choices.”

West Virginian Rudy Philips tells *The New York Times* why the US Centers for Disease Control and Prevention has launched its first-ever investigation into an ‘outbreak of obesity’ in his state.

“I'm sure skinny people go to those same restaurants.”

Daniel McGee, a statistician at Florida State University, finds Philips's explanation unpalatable.

SCORECARD

▲ No jacket required
Japan is rolling up its sleeves to hit its emissions targets. The government is asking businessmen to throw off their sharp suits and go for that cool, casual look to cut the use of air conditioning.

▲ Culture club
Egged on by recent doping success, South Korea is planning a world stem-cell bank. And with current rates of interest, the growth potential is enormous.

▼ Dope show
Citing a possible link between homegrown cannabis and the global drugs market, the US Supreme Court has made medical marijuana illegal, prompting some to ask whether it has truly lost the pot.

OVERHYPED

Life on Mars
When methane was found in Mars's atmosphere last year, the media (and many scientists) seized on the idea that it was a whiff of life from martian bacteria. As estimates of the gas grew, so did column inches on the hopes of finding microbes.

But the real source may be far more mundane: chemistry. Geologists have calculated that given a supply of water and carbonates, just 80,000 tonnes of the mineral olivine would be enough to generate a year's worth of methane. Another paper reports a Cuba-sized olivine field on Mars's surface, and suggests there may be more beneath. Could the prospects for life be stone dead?

IMAGE
UNAVAILABLE
FOR COPYRIGHT
REASONS

Thorny problem: Arizona's saguaro cacti can take decades to grow back after a desert fire.

Pall hangs over desert's future as alien weeds fuel wildfires

TUCSON, ARIZONA

The wildfire season in Arizona has begun early this year. Following unusually high temperatures around the end of May, smoke has been seen rising at many places in the Sonoran Desert, and fire warnings have been issued across the region.

Ecologists warn that the problem is about to get far worse. Unless urgent action is taken, they fear that the uncontrolled spread of exotic weeds could trigger an ecological disaster in the area, as the frequency of fires rises dramatically.

Until the arrival of alien weeds, wildfires were not a problem in the region, which stretches from the southwestern United States to northern Mexico. The native vegetation is not dense enough to burn well. But thickly growing non-native grasses, which dry up in summer, cover the ground in a layer that spreads fire easily. The weeds have also become a serious threat to desert biodiversity, as they compete with native plants such as the saguaro cactus, which can take decades to grow back after a fire.

A shrubby grass known as buffelgrass (*Pennisetum ciliare*) has become common in the desert since the 1960s, and is largely responsible for the region's increasing wildfire problem since then. But ecologists fear that another invading weed, Sahara mustard (*Brassica tournefortii*), could have an even more devastating effect.

“Sahara mustard is the greatest threat to the

Sonoran,” says Mark Dimmit, a botanist and director of natural history at the Arizona-Sonoran Desert Museum near Tucson. “If nothing is done, it could turn the desert into a wasteland.”

Earlier this year, the Arizona state government put buffelgrass on a list of prohibited species, which means planting and transporting the noxious plants and their seeds is banned. And in the Tucson area, where a wildfire threatened suburban neighbourhoods in 2003, attempts are under way to eradicate buffelgrass mechanically. The weed grows near roads and highways, and in patches on desert hills and slopes.

But control is more difficult with Sahara mustard, which spreads extensively across valley floors, roadsides, rocky hillsides and even sand dunes.

Its deep roots are hard to remove mechanically, and there is no biological agent for its control. “It's everywhere now,” says Dimmit. “We really don't know what to do.”

To gauge the scale of the problem, the Arizona-Sonoran Desert Museum began training a team of ‘citizen scientists’ in April. These volunteers will be equipped with data sheets and digital cameras and are about to begin mapping the weeds' spread.

But as a desert ecologist, Dimmit wishes he could spend his time on other things. “Looking at weeds gets really boring,” he says. “Conserving good habitats would be much more exciting.”

Quirin Schiermeier

“If nothing is done, Sahara mustard could turn the desert into a wasteland.”