

Spiders under the spotlight

In his book 'The world of spiders' (1958), the arachnologist William S. Bristowe commented: "Spiders may be liked or disliked but nowhere are they ignored." Most people hate or fear large spiders such as *Tegenaria* haunting their homes, although many who find minute money-spiders such as *Linyphia* on their clothing while walking in the country regard them as friendly and indeed of good omen as regards future prosperity.



Undoubtedly spiders produce potent toxins to enable them to paralyse their prey, and the old Saxons called them "attercop", meaning poison-head. However, in a discussion in *The Lancet* of 7 August, Geoffrey Kisbister of New South Wales discounts the widespread belief that spiders, apart from some ferocious tropical species, can be responsible for disease. Kisbister comments: "Spiders have influenced cultures throughout the ages and remain creatures that are both intriguing to some and feared by others." Indeed, arachnophobia is recognised as one of the commonest simple phobias known. A study of 261 adults reported that 32 per cent of women and 18 per cent of men said that the creatures made them feel anxious, nervous or even frightened.

Curiously enough, the fear of spiders appears to be a European trait, and in other parts of the world spiders are revered and considered fortunate to meet. Also, the pho-

bia may be conditioned in childhood, or may be shared by individuals who fear other animals such as slugs and maggots that evoke disgust. It is probable that it is transmitted through families by the social learning process.

Arachnophobia seems to have originated in medieval times in the epidemic of tarantism that afflicted southern Europe. The bite of the notorious tarantula was then counteracted by energetic dancing lasting several days.

Today, the current myth is that spiders may be responsible for necrotic skin ulcers. These constitute a poorly defined clinical disorder, although it is believed that spiders of the *Loxosceles* genus are capable of inducing local cytotoxicity and necrotic lesions. However, the attribution of necrotic skin lesions to spider bites has been arrived at without sound evidence, and other causes should be sought before conclusions are reached.

Utility companies sued over global warming

An extraordinary development in the global warming debate is described in *Science* for 30 July. It has been known for years that the US is by far the worst offender when it comes to the industrial emissions that are calculated to raise the temperature of our planet. The US administration has gone to great lengths to excuse its own attitude to the problem. Now the attorneys general of eight states have undertaken a legal challenge to the country's five largest emitters of carbon dioxide, demanding that the electricity utility companies cut their emission by 3 per cent each year for the next decade. Such action is unprecedented, and legal experts predict that the battle in the courts will be an uphill one.

Recent years have seen some lesser moves. For example, in 2002 some environmental groups sued the Overseas Private Investment Corporation and the Export-Import Bank of the US for not conducting environmental reviews of the power plants they financed. In 2003, the states of Maine, Massachusetts and Connecticut sued the Environmental Protection Agency for failing to regulate carbon dioxide as a pollutant according to the Clean Air Act. Now the states of California, Connecticut, Iowa, New Jersey, New York, Rhode Island, Vermont and Wisconsin and the City of New York are claiming that carbon dioxide liberated by utility companies is contributing to global warming and will harm the health of US residents. They allege that the harmful effects will include increased deaths from heat waves, increased asthma, beach erosion, groundwater contamination from rising sea level, drought and floods.

It is said that the defendants between themselves produce some 650 million tons of carbon dioxide annually and that their 174 plants burning fossil fuels contribute about 10 per cent of the anthropogenic carbon dioxide in the US. Improving plant efficiency, promoting conservation measures and making use of wind and solar power could reduce emissions by 3 per cent annually without any effect on electricity bills. The worldwide nature of global warming may make it difficult to assess the contribution of the companies sued but the effort must be made.

We must identify the forces driving vandalism

The petty but highly disturbing and destructive practice of vandalism seems to making ugly inroads into our culture. A Vandal in the classical meaning of the word was a member of a Germanic people who earned notoriety in the fourth and fifth centuries of our era by ravaging Rome and destroying books and works of art. Thus, by definition a Vandal was the name given to a wanton and ignorant destroyer of other people's property.

As a distinct race, the Vandals originally occupied what is today Poland, whence they moved south about AD200. At the end of the year 406 they crossed the Rhine near Mainz and spread destruction throughout Gaul. Restless and irresponsible in their habits, they moved over the Pyrenees and occupied Spain, and eventually found their way into northern Africa, in 429. They established themselves in Numidia and Mauretania, and went on to conquer Carthage. The Goths and the Vandals between them were vigorous supporters of

the Arian heresy that had an upsetting influence on early Christian communities.

So much for the original Vandals. What concerns us today is to determine the driving forces behind current vandalism in our society. So far as I can make out, no one seems to have analysed the motives that underlie vandalism and the urge to destroy or deface for the sheer excitement of it. It seems that vandals are not driven by any motive of competition with others, nor is there a motive of gain or even of fanaticism. Sheer boredom has been held responsible, but boredom can best be overcome by constructive, not destructive, activity. Much more serious study should be devoted to the problem.

Meanwhile, we shall have to suffer the wrecking of our telephone booths and bus shelters, the desecration of our public parks and gardens, and face the fact that local authorities can no longer maintain the public conveniences that are a part of civilised society.

And I quote . . .

Nothing endures for ever

"No perfection is durable. Increase hath a time, and decay likewise, but all perfect ripeness remaineth but a moment. As is plainly seen in fruits, plums and cherries, but more sensibly in flowers, as roses and suchlike, and yet as truly in all greater matters. For what naturally can go no higher must naturally yield and stoop again." — Roger Ascham: 'The schoolmaster' (1570).