ON THE RECORD

"The Royal Society today is a lazy institution, resting on its historical laurels... It is little more than a shrill and superficial cheerleader for British science."

An editorial in *The Lancet* calls for the Royal Society to revamp its mission.

"The benefits of research that kills living human embryos are purely speculative and have been hyped by researchers who are after federal funding."

Congressman Steve King (Republican, Iowa) condemns plans for US funding of embryonic stem-cell research.

SCORECARD

▲ **Weeds**
The rampant, invasive weed kudzu may be useful after all. An extract from the plant seems to help people reduce their alcohol consumption — a sobering thought.

▶ **Smallpox experiments**
The World Health Organization says it might approve research on smallpox, if scientists provide more details on the work.

▼ **Japanese girl power**
Japan finds it has a lower percentage of women in its science and technology work force than any other rich nation.

OVERHYPED

Shark cartilage
During the 1990s, shark cartilage was the 'next big thing' — an alternative cancer treatment that actually seemed to work, at least in some animal studies. But a paper in this week's *Cancer* takes a thorough look at shark cartilage in human cancer patients, and it's not pretty. The paper reports that 42 cancer patients who took the cartilage lived no longer than the 41 who went without it. In fact, those taking the cartilage felt worse. Maybe this will sink the shark idea once and for all (C. L. Loprinzi et al. Cancer doi:10.1002/cncr.21107; 2005).

We'll rain on your parade, forecasters tell rogue pundits

LONDON

Frustrated weather forecasters are fighting back against rogue companies that sell forecasts with claims of impressive accuracy, but that have no apparent scientific basis.

Private forecast providers have proliferated in Europe and the United States over the past decade as various industries demand increasingly accurate information about the weather. Insurance companies want to be warned of wet weather, for example, which can result in claims for flood damage. And retailers need shorter-term predictions to help them judge what to stock. "If there's a heatwave coming we need barbecues, salads and lager," says a spokeswoman for Sainsbury's supermarkets in the United Kingdom.

Most providers are large companies that generate a high level of satisfaction among their customers. But even national meteorological offices have been accused of using unclear statistics to advertise the accuracy of their forecasts. And there is nothing to stop any individual from using freely available data, such as those released by the US National Weather Service, to produce their own weather forecasts.

Meteorologists are concerned that the rise of private forecasters could affect the reputation of their trade. They are reluctant to name specific firms for fear of legal action, but say that some forecast providers use professional-looking websites to hide the fact they are using scientifically flawed methods that produce unreliable predictions. "We have companies claiming they can predict months ahead, using methods they will not mention," says Pascal Mailier, a meteorologist at the University of Reading, UK.

So Britain's Royal Meteorological Society has decided to develop an accepted set of metrics with which to rate the accuracy of different forecasting firms. Mailier, who is leading the project, hopes the plan will clean up the industry. "I'm giving them the chance to prove themselves," he says.

To come up with a fair way of rating firms, the society has asked Mailier and his colleagues to survey the methods that are available for assessing forecasts. They will present preliminary results, together with comments

C. LUZIER/REUTERS/NEWSCOM

Washout: inaccurate weather forecasts can lead to huge losses for companies such as insurers.

from users and the 20 or so forecast providers in Britain, to the society's annual conference in September. The rating system could in principle be used by an independent body to gauge the accuracy of different providers.

Finding a method that everyone can agree on, however, is likely to be less straightforward than it sounds. One way is to award points for different aspects of the forecast, such as wind speed or temperature, and add them up to give a total score. But this involves arbitrary

> "We have companies claiming they can predict months ahead, using methods they will not mention."

judgments, so the score is highly dependent on how the points are awarded.

The Met Office in Britain has traditionally rated its next-day forecasts as 85% accurate. This sounds impressive, but forecasts obtained simply by assuming that tomorrow's weather will be the same as today's achieve 77% (see J. E. Thornes and E. A. J. Proctor *Weather* 54, 311–321; 1999). The Met Office now says that the figure of 85% attracts too much attention, and prefers instead to use standard statistical measures of error that focus on one variable at a time.

No single metric is likely to do the job, the project team warns, because the needs of users vary. Local governments might be interested in the accuracy of ground-temperature forecasts, for example, to decide whether roads need to be gritted in advance against