

LAST BITES

Flying fish smash sound barrier

IS IT a bird? Is it a plane? Well, yes – it is a plane. A plane powered by winter flounders and other high-flying fish species, no less. In Bremen, Germany, a team at the Fraunhofer Institute for Manufacturing Technology and Applied Materials Research has revealed that aeroplanes of the future could be protected by an anti-freeze paint developed from Arctic fish proteins.

As *New Scientist* reports, the protein-based coating prevents ice from forming on the wings of aircraft during high-altitude flights – a dangerous process that increases drag and can create turbulence during take-off and landing.

Ice crystals develop from a tiny 'seed' of ice that grows bigger as more water molecules latch onto its surface, but death-defying winter flounders – who can survive at temperatures below freezing point – have proteins that inhibit this growth by bonding with the smaller ice crystals, making it harder for more water molecules to attach.

Previously, anti-freeze proteins found in plants, fish and insects were synthesised in labs and used to prevent foods from being damaged by icing-up in the refrigerator. Now,



colleagues at the Institute have succeeded in developing a fish-powered substance that could be used for a range of large-scale technological and engineering applications.

Evidently, when it comes to the remarkable powers of fish, the sky's the limit.



REALITY TV shows have long been criticised for their exploitation of low-intelligence contestants, but all that is about to change as the latest fly-on-the-wall experiment reveals a new breed of participants with unquestionably higher IQs: Dublin Bay prawns.

A cross-border scientific project in Ireland, a joint venture between the Irish Marine Institute and the Northern Ireland Agri-Food and Biosciences Institute, is using underwater television to accurately map prawn stocks and behaviour in the Irish Sea. Surveys suggest that between 7-10 billion prawns live in the area, hidden in countless complexes of burrows.

Nephrops are highly territorial and probably do not move more than a few hundred metres over their lifespan – making them ideal Big Brother material. However they are also rumoured to have superb geographical awareness, a high tolerance for foreigners and the ability to sustain meaningful conversation night after night – all factors which might cause producers to be nervous about potential ratings. 'Audiences may not be used to watching these kinds of behaviours from reality show contestants,' an unnamed source in the television industry comments.



THE GLOBAL fishing industry can proudly claim to be at the cutting edge of communications technology. However, for some hard-up fishermen, the 'cutting edge' is sometimes employed in a rather less progressive manner – namely, deliberately hacking up hundreds of tonnes of internet sea cables in the Far East and causing a six-month online disaster.

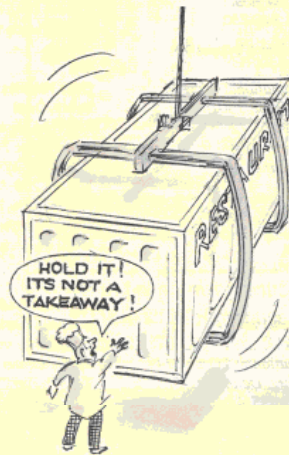
Vietnam runs most of its electronic communication through underwater lines, which extend from the Mekong Delta's south coast round to Thailand. Local fishing boats, however, could not resist the lure of the valuable copper contained within the wires, and began a co-ordinated operation to 'fish' the cables, cut them up and sell them as scrap metal.

While the copper-dredging crews could not be faulted for innovation, internet users were less than amused, after communications repair teams took half a year to reconnect the savaged lines. The clean-up job remains unfinished, and the rumoured motto 'Bad catches? Better net copper' has been consigned to legend.

■ AS ANY fish expert will tell you, fully-integrated supply lines are the challenging and necessary future of a sustainable global fish industry – so it's hats off to the owners of the Red Fish Blue Fish restaurant in Victoria, Canada, who have taken the concept wonderfully literally. The seafood eatery sits proudly inside nothing more than a steel shipping container, the *Times Colonist* reports, with a kitchen that measures only 2.5 x 6 metres.

Everything produced at Red Fish Blue Fish will be either composted or recycled, so that neither the business or its customers creates garbage, and the restaurant also supports a '100-mile diet', which refers to food produced within that limit.

Clearly, the future is now. Next stop: captains doubling up as onboard gourmet chefs perhaps? Though we're not sure how well that one would go down...



■ WHAT WERE we just saying about captains multi-tasking? *Seafood International* takes it all back – after learning that American shrimp boat captain Ed Kiesel delivered his onboard cook's baby with nothing more than net twine, a first aid book and a bunch of paper towels.

When the heavily pregnant cook went into labour 30 miles offshore, Skipper Kiesel successfully carried out the difficult operation – despite the fact that the child initially emerged feet-first. The intuitive skipper then used the net twine, sterilised in boiling water, to tie off the umbilical cord and cut the newborn free from its relieved mother. Is there anything fishermen can't do?

■ TWELVE heads are better than one, as the saying goes – or at least that's what scientists at Hanover University of Veterinary Medicine in Germany would appear to believe. Presumably in an effort to remind everybody that science does have a sense of humour, researchers have created a 12-headed jellyfish by tweaking some genes – just when you thought it was safe to go back in the water.

Animals with many heads are rare in nature, suggesting that two or more heads usually aren't better than one – having more than one head results in physical costs with no immediate matching benefits. However, biologist Bernd Schierwater noted that corals, which are animals, often form colonies by adding heads to a common stalk – just as with the modified jellyfish that the researchers created.

As well as fulfilling a few science fiction fantasies, the experiments may shed some light on how natural colonies of other multi-headed organisms first originated on Earth.

■ 'SUSHI'S revenge' might sound like the title of a low-budget Japanese action movie, but in Tokyo the fish really are biting back. The *Washington Post* has revealed that in the Oedo-Onsen-Monogatari, a four-year-old hot springs spa in the city's Odaiba area, a stunning reversal of the food chain takes place: the fish dine on the customer.

The spa has added a new treatment to its menu: Doctor Fish's 'pedicure' and 'manicure', where flesh-hungry *Garra rufa*, imported from Turkey, munch down on customers' dry, flaking skin. The ravenous fish act like pumice stones, leaving baby-smooth skin in a matter of minutes – while also, presumably, quickening the pulses of their brave patients.