

THE SHELLFISH NETWORK  
NEWSLETTER, SUMMER 2006



NO 40

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Aims: 1) To increase public awareness of the fact that shellfish are living creatures capable of experiencing pain and stress.  
2) To stop the cruelty involved in, and eventually to bring an end to, the slaughter of shellfish for human consumption and other abuses.



Well, wonderful news! Because of your great generosity I have been able to purchase a wonderful reconditioned photocopier which is much newer than my present one and has all the bells and whistles that will make life easier! This has, of course, emptied the coffers, so any additional little help is always appreciated. I am still able to take our message into schools, and do events, producing all our info, so the money is really supporting the marine life that is so important to our planet. Strangely, the seas are often forgotten when discussing environmental issues, but I always bring them to the fore! (I can be very noisy when pressed!!) So, a thousand thanks to you all. Hope you like the next newsletter. Julie

CRUSTACEANS

Tim Dowling, of *Guardian Weekly*, 19-25 May, 06 writes: 'Consider, for a moment, the most common modern debate about what is or isn't humane treatment. It has nothing to do with the Geneva Convention, illegal

detention, military intervention, emergency food aid or even fox-hunting. It's about the kindest way to kill a lobster.' He goes on to say that the Gulf of Maine Research Institute claims that 'how to cook a lobster in the most humane manner has been a concern of guilt-ridden chefs for generations.' We (the Network) are quoted as saying that there is no humane way of killing a lobster, and the Crustastun is also mentioned. The compassionate Mr Dowling ends his article by saying 'I don't worry about the pain of lobsters as much as I worry about overcooking them. I'm going to hell for more important crimes. In a Mr Whippy van.' (Where does it state that compassion is quantifiable or finite? Just because we care about lobsters doesn't imply that we don't care about other creatures, including humans. Quite frankly, I'm not picky about having feelings for any animal, and I'm sure that goes for all of you. Although, I must say, there are a few people...! Ed.)

\* *The Scotsman*, 28. 11. 05, also discusses the ethical dilemma on how to kill lobsters. It states '...the question of whether lobsters suffer pain when they are boiled alive has long since been resolved by scientists: they don't.' (No, obviously those scientists don't suffer pain. I wonder how they would deal with being boiled alive? Isn't it strange, that journalists don't seem to do proper research these days? I have many papers written by eminent scientists who prove that lobsters *do* feel pain. But that would get in the way of satisfying the journalists' jaded palates! Ed.)

\*Animal rights activists claimed responsibility for an attack on lobster pots at a harbour near Stranraer, said the Lobster Liberation Front (LLF) (My informant says 'Good for them!. Ed.) *Aberdeen Press & Journal* 30. 3. 06

\* Also in the *P&J* 25.5.06, Scientists have found that social lobsters are skilled marine medics with the ability to diagnose sickness in their neighbours. The creatures not only detect a virus before it produces any symptoms, but also quarantine those infected. Sick lobsters are shunned by other members of the group, and researchers made the discovery while observing the Caribbean spiny lobsters off the coast of Florida. It is

thought the lobsters ‘smell’ chemical signals from lobsters that are ill.

\*Whole foods Market Inc. have stopped selling live lobsters and crabs on the grounds that it’s inhumane. Let’s hope all the other supermarkets join them in their excellent decision. *Yahoo News 15. 6. 06*

\* *Radio Four Food Programme 14. 4. 06* discussed the catching and cooking of lobster and brown crabs. After cooking the live crabs in water, bringing them to the boil, the presenter said it was important to make the crab ‘look nice and present it well’. ( I thought that had already been done by nature! A live and happy crab is far more beautiful than a dead one, however well it has been ‘dressed’. Ed. )

\*It would seem that the Cromer crab has ‘suffered a catastrophic season, with the number of crabs caught off the Norfolk coast falling to an all-time low.’ The fishermen there blame over-fishing of adult brown crabs elsewhere on the east coast for the low catches. It is also feared that offshore dredging and changes in sea temperature caused by global warming could be disrupting breeding patterns. (It can’t possibly be the fault of the Cromer fishermen! Ed.) *Source: Independent, 31. 5. 06.*

\*An article entitled ‘What’s the catch?’ in the *Ind. 21. 4. 06* discusses how the oceans are in peril. It describes how fish are caught, including trawling which is the most damaging method of fishing. The biggest nets smash and crush everything in their path and swallow vast quantities of life; long-line fishing, involving miles of monofilament fishing line covered in thousands of individually baited hooks cause the death of thousands of sea birds every year; baited traps/creels in which cages are dropped to the ocean floor. These are generally responsible, but can unintentionally catch unwanted species. [Escape hatches should be fitted to prevent ‘ghosting’ in which the trap is lost, possibly washed up on a beach where the occupant will die]; purse seining in which large nets circle fish, catching huge quantities, many of which are unwanted; drift nets/gill nets are suspended from the water surface and these can be damaging but smaller nets are considered eco-friendly; and finally farmed

fish which are reared in cages in sea lochs, inlets, tanks and sometimes in open sea.

These farms pollute the environment with faeces and antibiotic-laden food. On some farms conditions are so bad that 40% of the fish die before being harvested. After all this, it seems that hook-and-line, rod-and-line, hand-line and pole-and-line traditional methods are an environmentally responsible way to catch fish, as is trolling in which lines are trained at various depths to catch different species and unwanted catch is quickly released. (So that’s all right then. I’m sure the fish are eternally grateful for being caught in an environmentally friendly way. Ed.)

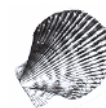
\*Scientists say they have discovered eight previously unknown species of crustaceans and scorpion-like invertebrates in an underground cave in Israel. The cave has been sealed off for millions of years. Every species examined had no eyes. Apart from the scorpions they were all alive. *Source: Guardian, 1. 6. 06*



### LITTLE ONES

\* In February food lovers were being asked to mark Valentine’s Day by sparing a thought for the love lives of Scotland’s native oysters. The creatures are struggling to reproduce due to unlawful poaching. ‘Although it is now unlawful to gather native oysters without permission from the Crown Estate, poaching still continues and has a dramatic impact on already-small populations,’ says Jane Dodd, marine adviser for Scottish Nature. *Source: Heritage.P & J, 14. 2. 06*

\* The Hillsborough, Co. Down oyster-eating championships took place on 21<sup>st</sup> May, and was won by Colin Shirlow who wolfed 233 of the creatures in three minutes. One competitor was sick all over a cameraman. (Let’s hope the others were sick all over their best carpets! Ed.) *Source: Sunday times, 21. 5. 06*



\* The Zebra mussel has spread through Britain’s rivers and lakes since 2000. Now scientists at Cambridge University have come up with a solution – the ‘BioBullet’.

Potassium chloride, which is deadly to these so-called 'pests' has been packed into microscopic particles of fats which are ingested by the mussels and release a lethal dose. (One wonders what harm this is doing to the lakes and rivers? Ed.) *Source: P & J, 3. 2. 06*

\* Sea urchins have been named as the latest aphrodisiac. Apparently the prickly marine creature can pep up your sex life as much as oysters, according to Kirsty Urquhart, *P & J, 2. 3. 06*. The creatures are said to live happily alongside farmed salmon, feeding on leftovers and cleaning algae from the sides of cages. They are already under threat from over-fishing and have become a delicacy on the world's most exclusive menus from Paris to New York. (What a sad lot these people are, to have to pep up their sex life by eating creatures that feed on left-overs and algae! Ed.)



\* The smallest animals in the sea are the zooplankton, tiny shrimp-like creatures, swimming worms, flying snails and pulsing jellyfish. They form a vital link in the web of marine life and yet next to nothing is known about them. Again, some of the species discovered in the research programme in the Sargasso Sea seem to be new to science. The research is part of the international Census of Marine Life and Dr Peter Wiebe says, 'In order to say anything about how climate change affects the ocean we really need to know who's living there. We are charting the plankton in the sea like astronomers chart the stars in the sky. We can assess what changes – man-made and natural – are taking place in the largest habitat on earth.' Many zooplankton feed on the plant plankton that absorb carbon dioxide from the sea surface where it has dissolved from the atmosphere. Zooplankton often deposit this carbon deep in the ocean where it can remain for many thousands of years – thereby acting as an important 'sink' for atmospheric carbon dioxide. *Source: Ind. 5. 5. 06*

\*The Bunaken National Marine Park, winner of a prestigious Tourism for Tomorrow Award in 2003, is threatened by plans to dispose of waste from a new gold-mining operation. The park is on the island of Sulawesi in Indonesia. According to the World Wildlife Fund for Nature, (WWF) the ocean currents will drag any pollution from the proposed mine at Toka Tinding towards the reefs of nearby small islands, which include the marine park, and contains 400 species of coral, more than the Great Barrier Reef, and thousands of fish species and rare varieties of pygmy seahorses. *Source: Telegraph Travel, 6. 5. 06.*

\* English Nature has asked the Government to impose a ban on scallop dredging in Lyme Bay, Dorset to protect rare corals and sea fans after the collapse of a voluntary agreement between fishermen and conservationists. Some boats are bringing in £3,500 worth of scallops a day. *Source: Daily Telegraph, 5. 6. 06*

#### INDUSTRY

\* In January prawn fleets in Scotland were hit by quota delays. Spokespeople said the delay was 'intolerable'. *Source: P & J 26. 1. 06*

\* However, an aquaculture conference has heard of enormous opportunities for farmed shellfish from Scotland. Production of farmed mussels now stands at over 4,000 tonnes annually in Scotland and analysts predict the market could grow by another 50% in the next two to three years. *Source: P & J 13. 2. 06*

\* Lehman Brothers Merchant Banking has bought the European seafood arm from H.J. Heinz for £290m. The business comprises the John West brand in the UK and France's Petit Navire and Italy's Mareblu brands as well as other plants. *Source: Ind. 22. 2. 06*

#### MARINE RESERVES/AQUARIA

\*An area in the South Pacific twice the size of Portugal has been declared the world's third largest marine reserve by the nation of Kiribati. Commercial fishing will be banned in the area, covering nearly 74,000 square miles and has 120 species of coral and 520 species of fish. Kiribati was known as the

Gilbert Islands and lies between Hawaii and Fiji. Source: Daily Telegraph, 30. 3. 06



\* Up to 75 campaigners marched through Bedford town centre in a protest over plans to build a freshwater aquarium which will be a research complex and aquarium, four times the size of the Eden Project at Stewartby. Bedford Animal Action say they oppose the National Institute for Research into Aquatic Habitats project on the grounds of animal cruelty. If plans are approved, this 'zoo' for aquatics could be running by 2010. Source: BBC News 14. 5. 06



## TOXINS

The Arctic now has higher concentrations of toxic chemicals than in many of the countries that produced them. Trapped in ice, sometimes for decades, chemicals ranging from DDT to flame retardants are re-released during melting periods. They are building up in Arctic fish, seal and whale populations and are already affecting the immune, hormone and reproductive systems of polar bears.

Source: WWF News Summer 05

\* In January, 2006, the European Commission updated legislation requiring monitoring of shellfish intended for human consumption. Levels of marine biotoxins that may be present in shellfish are measured using a variety of tests, including an extremely cruel mouse test. Because EU law (Directive 86/609 on the protection of animals used for experimental purposes) states that where a non-animal test is available it should be used, the new legislation should require use of non-animal methods and forbid the mouse test. As the mouse test is set in some cases as the 'reference test', Caroline Lucas, MEP (Greens) has tabled a Parliamentary Question pointing out this breach of stated '3Rs policy. Source: Keep Working for Animals, Caroline Lucas

\* The background to these tests is in a summary of a report for the EU Amnesic

Shellfish Poisoning (ASP) working Group by the UK National Reference Laboratory for Marine Biotoxins, (Jan. 2001) It explains that ASP arises due to the presence of specific toxins in shellfish, such as the king scallop, and can cause gastroenteritis and neurological symptoms, including memory loss. The ASP causing toxins include domoic acid (DA), associated compounds (*epi*-domoic acid (*epi*-DA and *iso*-domoic acids (*iso*-DA) In Scottish shellfish, DA is the predominant compound. Historically, high ASP toxin concentrations have been found in the digestive gland. Gonads also contain significant concentrations of these toxins. The research paper, which I have read, explains that 'consumption of cultivated blue mussels from Prince Edward Island was recently associated with episodes of gastrointestinal and neurological distress. Extracts of the toxic mussels, tested in the mouse bioassay for paralytic shellfish poisoning (PSP) caused atypical response characterized by scratching, convulsions and death. The present investigation shows that the domoic acid present in toxic mussels can produce in mice and rats signs identical to those induced by mussel extracts...When administered orally, doses of between 35 and 70mg domoic acid/kg body weight were required to produce toxicity in mice and rats...since human intoxication occurred at an estimated 1-5mg domoic acid/kg body weight, susceptible individuals appear to be more sensitive than rodents to the oral toxicity of domoic acid.' (Wonderful! We now know that mice and rats are susceptible to poison from eating shellfish. Not a lot of people know that! Ed.) Source: Food Chem toxicol 1989 June 27 (6) 377-84

\* Now, in addition to all that, Azaspiracid poisoning (AZP) is a recently discovered toxic syndrome identified following severe gastrointestinal illness from the consumption of contaminated mussels. Studies toward total toxin syntheses revealed that the initial published structures were incorrect and they have now been revised. (That makes me feel more confident! Ed) These toxins accumulate in bivalve molluscs that feed on toxic microalgae ...previously considered to be toxicologically benign....several types of

bivalve shellfish species have now been confirmed throughout the western coastline of Europe. They can induce widespread organ damage in mice and are probably more dangerous than previously known classes of shellfish toxins. *The exclusive reliance on live animal bioassays to monitor azaspiracids in shellfish failed to prevent human intoxications* (my italics, Ed). The strict regulatory control of azaspiracids in shellfish now requires frequent testing of shellfish using highly specific and sensitive methods involving liquid chromatography-mass spectrometry. Source: Food Additives & Contaminants. *Taylor & Francis Group Vol. 21 9/Sept 2004 879-892*

\*According to *Science Daily*, 14. 6. 06, the EU has dropped mouse tests for shellfish.



### ENVIRONMENT

\* Global warming is killing the coral seas. Beautiful marine landscapes could disintegrate into wastelands devoid of life if damage is not halted, say scientists. Global warming has had a more devastating effect on some of the world's coral reefs than previously assumed. It has also wiped out some fish species. Earlier studies focused on coral damage but the new report by the international team studying long-term effects on ecosystems show the long-term impact on fish and other creatures of the 1998 event where global warming caused Indian Ocean surface temperatures to increase to unprecedented and sustained levels, killing off (or bleaching) more than 90% of the inner Seychelles coral. The research shows that, while the 1998 event was devastating in the short term, the main long-term impacts result when the damaged reefs were unable to re-seed and recover. Many have collapsed into rubble that became covered by algae. The collapse removed food and shelter from predators for a large, diverse amount of marine life. In 2005, average coral cover in the area was just 7.5%. The survey also revealed that species diversity had decreased by 50% in the worst affected sites. Smaller

fish have reduced in number more quickly than larger species and their decreased availability has a lasting effect on the food chain. The decrease in herbivorous fish is a key concern as they control the spread of algae. Nick Graham, of Newcastle University's School of Marine Science and Technology said: 'Reefs can sometimes recover, but we have shown that after severe bleaching events, collapse in the physical structure of the reef results in profound impacts on other organisms...' Source: *Daily Tel. 16. 5. 06*

\* The UN is facing pressure from scientists and campaigners to acknowledge the potentially devastating effect of climate change on the world's most precious ecological sites. The World Heritage Sites Committee, which stipulates that listed sites should not be damaged by its signatories, is preparing to hear a petition brought by scientist, which, if successful could lead to poor countries attempting to sue richer neighbours for emitting greenhouse gases. Miguel Alamilla, who runs a marine protected area off the town of San Pedro, said the industrial countries '...need to open up and not be egotistical. They need to think globally...Be aware that people are dependent on the coral reef and their livelihoods depend on that. If it is destroyed what will happen to them?' But the UN will face determined resistance from the US when the committee meets in July. Source: *Ind. 9. 7. 06*

\*But in an e-mail from *Frances Beinecke, President, Natural Resources Defense Council to me on 21. 6. 06*, the Bush administration has just designated the Northwestern Hawaiian Islands, where the NRDC campaign has been advocating protection for an ecosystem that harbours 70% of America's coral reefs, as a designated national monument, granting it the strictest protection possible under the law! This is certainly great news. As the world's largest marine reserve, these islands will now receive immediate and lasting protection. Although native Hawaiian cultural activities will be allowed, harmful practices will be prohibited and commercial fishing will be phased out entirely over the next five years.



\* 'Much of the carbon dioxide given off from the burning of fossil fuels goes into the ocean, where it changes the acid balance of seawater. The repercussions for marine life may be enormous' the atmospheric concentration of carbon dioxide was approximately constant for several thousand years and then began to grow rapidly with the onset of industrialization in the 1800s. About a third of the CO<sub>2</sub> released by the burning of fossil fuels currently ends up in the ocean. Absorbed CO<sub>2</sub> forms carbonic acid in seawater, lowering the prevailing pH level (which is slightly alkaline) and changing the balance of carbonate and bicarbonate ions. This shift toward acidity, and the changes in ocean chemistry that ensue, makes it more difficult for marine creatures to build hard parts out of calcium carbonate. The decline in pH threatens a variety of organisms, including corals, which provide one of the richest habitats on earth. Within a century, the surface of the Southern Ocean will become corrosive to the shells of the tiny snails that form a key link in the marine food chain within this highly productive zone. Carbon dioxide (CO<sub>2</sub>) combines with water to form carbonic acid (H<sub>2</sub>CO<sub>3</sub>) the same acid found in carbonated beverages. Like all acids, this releases Hydrogen ions (H<sup>+</sup>) into solution, in this case leaving both bicarbonate ions (HCO<sub>3</sub><sup>-1</sup>) and carbonate ions (CO<sub>3</sub><sup>-2</sup>) swimming around. A small fraction of the carbonic acid remains in solution without dissociating, as does a little carbon dioxide. The resulting brew is complex. One of the results of all this is the increase in hydrogen ion concentration, quantified in terms of the pH scale. A drop by one pH unit corresponds to a 10-fold increase in the concentration of hydrogen ions, making the water more acidic. Unless we modify our appetite for fossil fuels soon, ocean pH will fall by 0.3 by 2100. These chemical changes cause an upward shift in the 'saturation horizons' for calcite and aragonite – the water levels deep in the sea below which shells of marine organisms made of these minerals dissolve. Some of the most abundant life-forms that could be affected in this way are a type of

phytoplankton and constitute a major food source for fish and marine mammals. *Source: Scientific American, March 2006* (If anyone would like to see a copy of this extremely well written and interesting article, please contact me. Ed.)



\* Antarctic waters hover just above freezing, but fish known as Antarctic notothenioids, keep from freezing solid thanks to a special 'antifreeze protein' that prevents their bodily fluids from turning into crystals. *Source: www.msnbc.msn.com/id/13426864 20. 6. 06*

### SAVE THE WHALES

Japan's whaling fleet set sail on 8 November, 2005. It was estimated that it would make its biggest catch in 20 years, nearly 1,000 whales over the coming months. *Source: Quaker Concern for Animals.*

\* Whether it's Japanese fishermen, pollution or coastal degradation, whales are under ever greater threat. *Source: Ind. 20. 1. 06*

\* The National Oceanic and Atmospheric Administration (NOAA) have criticized the Navy for ignoring scientific evidence that their mid-frequency sonar tests harm whales and for using a measure for allowable noise 100 times louder than NOAA's recommended level. In a letter the NOAA also challenged the Navy's plans to build a 500-square-nautical-mile underwater sonar training range in the Atlantic Ocean off the coast of North Carolina where they plan to hold submarine warfare training exercises. NOAA points out that studies of marine mammals in the wild indicate that military sonar is causing their organs to hemorrhage with fatal results. Since the Navy began conducting sonar experiments in 2000, dozens of whales have fatally or near-fatally stranded themselves on beaches in the Bahamas and other places. NOAA are concerned that the Navy's proposed testing facility could disrupt the endangered right whale's annual migration through the area. *Source: In Defense of Animals 25. 2. 06.*

\* Every winter, along the coast of California, a pod of pregnant grey whales cruises past the US-Mexican border. They continue their

6,000 mile migration from the frozen Arctic south. The whales spend the summer feeding on plankton in the waters of the Bering and Chuckchi Seas and winter in the lagoons of Baja California, where their calves are born. But the race is on to develop Baja California. It is hoped that this will help to end the terrible poverty there. But there are also fears that the development will destroy a delicate ecosystem of desert and coastal ecosystem and with it the breeding grounds of turtles, dolphins and grey whales. However, with funding from Earthwatch, a co-operative, known as the Ejido Luis Echeverria, has agreed in perpetuity to protect 120,000 acres around the Laguna San Ignacio, where the whales breed, in return for a \$675,000 trust fund put together by several groups. A coalition called the Laguna San Ignacio Conservation Alliance has now been established amid hopes that five other *ejidos* could be persuaded to sign similar agreements and eventually one million acres would be protected in private trusts. *Source: Ind. 14. 3. 06*

\* There are so many stories regarding the whales, including, of course, Japan's involvement in the vote against the ban on whaling at the International Whaling Commission (IWC) conference in June. Just keep writing to all the embassies of all countries involved: Japan, Norway and Iceland – explaining politely why this cruel and pointless hunting should end. A letter from Ben Bradshaw states quite clearly that Britain is strongly in support of the IAC moratorium on commercial whaling and opposes all forms of whaling, other than for indigenous people for subsistence purposes. Of course, we mustn't forget the seals in all this. Not only are the Canadians killing seals, but now, so is Namibia. Polite letters to these embassies are a start.

I also have a World Charter for Cetacea and again, if anyone would like a copy apply to me. Dolphins, seals, whales, porpoises, manatees – all these marine mammals are under threat at present. I have no more room for every story but they are such fascinating and intelligent creatures that they deserve a whole newsletter to themselves!



### GENERAL

The UK government has approved what many contend to be an illegal shipment of endangered sea turtles from the Cayman Islands to Sea Life Centres in Europe. Global conservation groups have joined the Costa Rican Government in condemning this shipment of green turtles, labelling the shipment as a violation of the Convention on International Trade in Endangered Species (CITES). *Source: Caribbean Conservation Corporation 20. 4. 06*

\* Tesco was actively involved in selling live turtles and live frogs at its branches in China, although I believe that they have now stopped. I have no more info on this. Can anyone advise? Ed.

\* *The Independent Extra*, 23. 6. 06 produced a beautiful 9 page article on sea life and its marine creatures, and lo and behold, *The Guardian* the following week produced some excellent wall charts on the same subject! They are terrific for me to take into schools.

\* A giant turtle, caught and tagged by scientists off the British Isles has taken a 5,000 mile journey. She was rescued off south-west Ireland after becoming entangled in lobster pots and returned to the Atlantic where she is being closely monitored by the scientists. *Source: Daily Tel. 2. 5. 06*

\* And Harriet, the giant Galapagos tortoise who probably knew Darwin, has died at the age of 175. *Source: Ind. 24. 6. 06*

### FISH

Shark brain implants that could turn the fish into 'stealth spies' are being studied in a research project funded by the Pentagon. A remote – controlled shark could track an enemy vessel's movements without being noticed. The navy also hopes to exploit sharks' natural ability to sense delicate electrical gradients and follow chemical trails left by a vessel. (Wow! how about some brain implants at the Pentagon? Ed.) *Source: Daily Tel, 2. 3. 06*



\* Vets are calling on goldfish owners to take better care of their pets after research finding that the creatures have long memories, may feel pain and can even pine for their owners when they are away. Richmond Loh, a vet from Launceston, Tasmania says that many university committees looking at the ethics (sic) of experimenting on animals now give equal consideration to fish. (Boy, I bet the fish are relieved to know that! Ed) Source: Sunday Times, 28. 5. 06

\* Sick, sick, sick. The artist Marco Evaristti is touring Europe with an arts installation that involves goldfish in a glass with a mixer in it. Visitors to the exhibition can, if they like, push the button and put the mixer into action, killing the goldfish. The artist calls this 'destroyed worlds and the utopia of reconstruction'. The visitors are then able to 'confront fundamental questions'. (I know the kind of fundamental questions I'd like to confront, but unfortunately it is illegal to do the same to the artist! Ed.) But – wonderful – on 21<sup>st</sup> April, 4 activists broke into the art gallery and liberated the goldfish and smashed up the 10 goldfish glasses and mixers. Source: Linda, 26. 4. 06



\* A new species of hammerhead shark has been discovered in the north-western Atlantic off the coast of South Carolina. Source: Ind. 13. 6. 06

\* Fish stocks in international waters are being plundered to the point of extinction because governments are failing to protect them, the WWF has warned. Species under threat include tuna because of illegal fishing and bottom – trawling, destroying entire ecosystems. Source: Ind 20. 5. 06

\* In contrast to farmed salmon, populations of wild Scottish salmon have been struggling to survive in Highland rivers. According to the Atlantic Salmon Trust, global warming is damaging the wild salmon population. Source, Ind 31. 5. 06

\* Scientists have now worked out why male guppies come in such a rich variety of colours. It seems that rarity helps them to survive in the wild. Vibrant colours are the key to attracting a female mate in the guppy world. But it also appears that predators find it more difficult to target the rarest patterns. Research showed that when a particular pattern or colour became common, it grew increasingly risky in terms of being eaten. Source: Ind. 1. 6. 06

\* Readers might be interested in the new Viva! Guide No. 3 on fishing, called The End of the Line, How commercial fishing is devastating the world's oceans, by Tony Wardle & Michelle Preston  
Viva! is at 8, York Court, Wilder Street, Bristol BS2 8QH 0117 944 1000, [www.viva.org.uk](http://www.viva.org.uk)

### POEM - The Exploration

Tortured  
All in the violence or calm  
No healing for those and no balm  
Who are hooked and ravaged

Savaged  
And torn in the lands far away  
Who are potted or parcelled in the sway  
Of tide and misfortune

Gutted  
And bloodied their lives once hidden  
And true, by another hand bidden  
For platters to strew

Beheaded  
And skinned for many a tyrant  
The life of the seas thus sent  
The ocean's majesty for us to lay bare.

John Amsden

Stop Press! The Independent, 5. 7. 06, has an excellent article on cruelty to crustaceans, following the fact the Whole Foods supermarkets have stopped selling live lobsters. And I have a radio interview tomorrow, 6. 7. 06! We're getting there. Ed.