PCB-Articles

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Tracking the Clyde's poison chemicals

Fears that poisonous chemicals may be threatening marine life off the Clyde coast are being investigated by two official bodies while conservation groups and at least one major chemical company stand by for action. The chemicals themselves are a mystery in more ways than one.

They are PCBs—polychlorinated biphenyls — used in a number of industrial processes, which recently have appeared in significant quantities in sewage sludge dumped in the Clyde estuary.

PSBs vary in the amount of chlorine they contain, those at the higher end of the scale being extremely persistent when released into the environment.

The Clyde River Purification Board have been doing extensive detective work to trace their origin. Some of those with a low chlorine content have been traced, but are not thought to be particularly harmful. The board have found that about 40 per cent of the high-chlorine material comes into the Clyde through a single sewer in the Glasgow area, and the board hope soon to be able to pinpoint the source.

The chemicals have been found in shellfish, fish and seabirds around the dumping areas.

The effect of the chemicals on animals is still not fully known, but — like other manufactured chemicals which are persistent and show a tendency to build up in the tissues of animals — they are considered undesirable until proved harmless.

BREEDING

They were found, sometimes in large quantities, in victims of the Irish Sea "seabird wreck" of 1969, when thousands of birds died. A later report by the Nature Conservancy suggested that PCBs could have been a contributory factor, though probably not the main cause of the death of some of the birds.

Laboratory tests at the conservancy's [illegible] Huntingdon [illegible] [illegible] in seabirds on the Clyde — are needed to kill, but investigations are still continuing into other possible harmful effects, such as interference with breeding.

Two scientists from the unit this week started a survey of three Scottish seabird colonies. They will first look at one near Dumfries which is thought to be more or less free from chemical contamination, then two others which are more exposed to pollution — one on the Clyde and one at the Mull of Galloway.

They will be studying other persistent poisons as well — such as heavy metals and organochlorines — and their possible interaction.

The results of both lines of investigations are being awaited anxiously by bodies like the Royal Society for the Protection of Birds and the Scottish Wildlife Trust.

RESTRICTED SALE

Some time ago Britain's main supplier of PCBs, Monsanto Chemicals—a subsidiary of an American firm — voluntarily restricted the sale of the chemicals to only those processes where their use could be controlled, and their escape into the environment prevented.

A spokesman for the firm expressed surprise that they were turning up in significant quantities in sewage. "We are the only manufacturer in the UK," he said. PCBs were mainly supplied for use in electrical transformers, where they were sealed into the equipment and could not escape. Sales for use in paints, plastics and adhesives—where PCBs were used to improve flexibility and handling — had been completely stopped. It was unlikely that any large imports for these purposes were being made.

He said that arrangements had also been made with a waste disposal firm for any surplus or waste to be incinerated in a special incinerator burning at unusually high temperatures, which destroyed the chemicals. [illegible]

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