

REPORT OF A NEW CHEMICAL HAZARD

A Swedish research worker has expressed concern over the increased amounts of polychlorinated biphenyl (PCB) entering the air, presumably from industrial smoke and rubbish-dump smoke, and being absorbed by water and taken up by fish and later humans. PCB which is related to and as poisonous as DDT was detected by Mr. Soren Jensen of the Institute for Analytical Chemistry, University of Stockholm, in some 200 pike taken from different parts of Sweden, fish and fish-spawn throughout the country, an eagle which was found dead in the Stockholm Archipelago, and, in his own, his wife's and his baby daughter's hair. As the baby is only five months old her father concludes that she got her dose of PCB with her mother's milk.

It is not known at present how much of this substance is dangerous or even fatal. If it is comparable with DDT then the limit would be 0.5 mg per cubic metre of air - and, for comparison, the dead eagle had at least 10 times as high a concentration in its body. For purposes of elimination Mr. Jensen has obtained feathers from eagles preserved at the Swedish National Museum of Natural History since 1880 and has detected PCB first in an eagle from 1944.

In Sweden, PCB is known to be used in electrical insulations, hydraulic oils, high-temperature and high-pressure lubricating oils, paints, lacquers and varnishes, and as pigments in various plastics. It does not seem to be used as an insecticide. It is not destroyed by incineration and may enter the body directly through the skin, by breathing, or by way of food (especially fish). It is particularly harmful to the liver, and also the skin; this has been demonstrated by experiments on mice. PCB is much harder to break down than DDT and there is every reason to suppose that it is much more difficult to get it out of the system. The substance has also been detected in the air over London and Hamburg and also in seals caught off Scotland. It can therefore be presumed to be widespread throughout the world.

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