

C. Paton - General Offices

January 24, 1969

Aroclor Toxicity - pf

OPPORTUNITY FOR MONTARS

Dr. R. E. Keller
W. R. Richard
Scott Tucker
W. F. Waychoff
E. Wheeler

CONFIDENTIAL

It is always pleasant to see a contribution towards new opportunities for our products. The attached came from Bill Niemeyer of Anniston. In view of our current program because of Department of Wildlife activities, it may be a mixed blessing unless Montar 9 can be used. Certainly I think we should stay away from Montars 1 and 5. Montar 9 being non-chlorinated polyphenyl might be worth pursuing as long as we are confident we won't run into future troubles.

I'll thank Bill but hold off on doing anything more until I hear from you.

Cumming Paton

CP:dbw

NEV 031183

780721

March 10, 1960

W. A. Tucker

U. S. Fish and Wildlife Service

Washington, D. C.

Dear Sir:
Bureau of Investigation

Would you please bring us up to date on chlorinated biophenyl
in wildlife. More activity is going on in the states. We
have more analytical work and more biological work under-
way to see if there is really a threat.

Ken Fowler, Maryland and Michigan done some identification
work. It was found that the birds were not the same as the
chlorinated biophenyls found in the water. They were actually
found in the water. We were very much concerned about this.

W. A. Tucker

js

NEV 031184

780722

2. Wood - Dr. Wood

630 Riverside, 1933.

Dr. Wood's reply in
1933.

3. Scott Fisher - Applied Sciences Section,
R & D Laboratories, Celanese.

When you got your memo dated January 20th. At the
time that Jensen in Sweden first published his report-
son about the presence of heparin in this life we met
with him and discussed his work. As a result of these
discussions he admitted that possibly some of his conclu-
sions regarding the heparin was associated with the chlorinated
hydrogen. Since he had found very published out of his report-
son. I can't think at that time we questioned that he
had in actual fact found chlorinated hydrocarbon in the sea
samples. Heparin was questioned his inorganic quotation of
certain medical information. When he had appreciated
this point we then had the latter part, not wanting to
take my time or attention in other countries. There has
been little work heparin in 1933 until about a month
ago, when an article appeared in a journal regarding discus-
sion of heparin. As we begin to find out the
present time whether this covers new work or whether it is
merely a re-assert of his original paper. At such time as
we got any further even we shall certainly let you have
this.

Best wishes,

D. Wood.

NEW 031185

780723

Ill. Louis Organic Research - E. S. Tucker

February 7, 1949

E. V. Richard - UNCL

MEMORANDUM

E. S. Tucker
UNCL

I will need 25 to 50 gram samples of
the hexaphene and DDT being used in
the chicken feeding studies. Will
you please have District Manager
these to me as soon as possible.

Thanks.

E. S. Tucker

EP

NEV 031186

780724

February 10, 1969

John F. Hunter
Industrial Bio-Test Laboratories, Inc.
1001 N. 1st St.
Chicago, Illinois 60610

Dear Sirs:

Will you please call to Mr. Ed-Ed from section of the telephone
and tell him that I am using in the similar study. Also
I have been contacted there so that he can assist them in his
analytical work.

Very personal regards.

Sincerely,

Robert E. Wheeler
Manager, Environmental Health

Chicago

cc: W. R. Richard

R. E. Wheeler

P.S. A Xerox of a letter from Industrial Bio-Test
Laboratories to Bill Hunt indicates that the
tissues from the 30-day rat study will be ready
for mailing the week of March 10. I don't have
any word on the status of the acute work with
the chickens.

NEV 031187

780725

Atmospheric New Pollutants

By David Perlman
Science Correspondent

The peregrine falcon, a highly poisonous and efficient bird of prey that once thrived all over America, is hearing a bitter warning to man:

A newly-identified chemical pollutant has arisen on our planet; it threatens not only the existence of falcons and countless other birds, but its molecules are already entering the bodies of humans.

Its long-term hazards at low levels to the human species are wholly unknown — although in concentrated gaseous form the chemical is

known cancer-causers. In California the pollutant is widespread; in the San Francisco Bay Area, many industries use a variety of the compounds; the chemicals have concentrated heavily.

The new pollution threat is a class of organic chemicals called polychlorinated biphenyls. Few humans have ever heard of them, yet they

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and health.

Bird Scientists Po

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are a major boon to industry; they are used in making everything from the chemical in paint and plastics, electrical insulation and rubber tires, waxes, sealants and epoxy resins.

Despite their widespread use, in America they are made only by Monsanto Chemical Co., which markets many forms of the compounds under the trade name of Aroclors.

They apparently enter the atmosphere and marine environment by vaporizing, volatilized from factory stacks, by waste discharge into waterways and even by the alternative venting of fires on fireways.

Their chemical structure is very similar to that of DDT, the potent and long-lasting insecticide. Both DDT and the biphenyls are known as chlorinated hydrocarbons, and in the words of a Berkeley researcher they are now "the most abundant synthetic pollutants present in the global environment."

The Berkeley scientist is Dr. Robert W. Rischbrough, a researcher at the Institute of Marine Resources in the University of California's Department of Nutritional Scientists.

Dr. Rischbrough and a team of colleagues from Davis, San Diego and Cornell University in New York, have been alerting ecologists to the hitherto unsuspected prevalence of the byphenyl compounds and to their invasion of man's environment.

FALCON

They have published their findings in the British science journal Nature. In its American counterpart Science, and have discussed them at conferences on environmental pollution. Rischbrough will be presenting more evidence on the problem at a Jolla scientific meeting on the "Chemical Invasion of the Ocean."

In an interview with The Chronicle recently, Dr. Rischbrough described the new pollution menace, and how

he came upon it. The tale is an ironic one, for it all started with the peregrine falcon. That bird, once described by an eminent ornithologist as "the embodiment of noble masculinity and lonely freedom," is now extinct as a breeding species in the eastern United States and southern Canada. Its rapid population decline during the years right after World War II — when DDT was first introduced as a major pesticide — first served to alert ecologists that a new poison might be damaging the environment.

Investigations showed the falcon was succumbing by preying on birds that had ingested large quantities of DDT, a chemical that concentrates in animal fats. So the falcon, in a sense, was man's first messenger to carry the warning that DDT was befouling the world.

And just as Sportan kings slew their messengers who bore bad news, so the falcon is being slain today as it carries the news of the new

chemical pollutant. Eighty percent of California's breeding peregrine falcons, Dr. Rischbrough estimates, have now been destroyed.

It was barely two years ago that Dr. Rischbrough, on an expedition to Lake Ontario, found an unidentified abandoned egg of a peregrine falcon. He analyzed the contents, found DDT in it, and also found it contained another unidentified chemical.

PCPs

Later that same chemical was found in the fat of European birds and Swedish scientists identified it as a polybrominated biphenyl, which was to gain its scientific notoriety as PCB.

Dr. Rischbrough and his colleagues then began an extensive hunt for PCBs in birds and fish around the West Coast. They are still at it.

They have found, for example, that PCB is present in almost all kinds of prey, but its quantities are largest in these birds that feed on fish or fish-eating birds. The material, like DDT, appears

only starts concentrating in the breast milk of the mother. The "fetal organ" — the embryonic organs of plants and animals — the highest in concentration were found in the eggs and fish and even in the bird's egg membranes.

Presenting a picture of the effects on birds, Dr. Rischbrough said that the study revealed that the birds brought back from the land exhibited a variety of symptoms, which included an apparent inability to reproduce.

In a number of studies of birds and fish around the West Coast, he and his colleagues have found a clear trend. PCB levels as much as 100 times higher than birds from relatively uncontaminated areas. Dr. Rischbrough said that the levels of PCBs in birds are higher — between a fifth and a half the DDT.

In birds and their eggs, Dr. Rischbrough said, the levels of PCBs are higher than in fish. This is because PCBs are more persistent in the fat of birds than in the fat of fish.

Dr. Rischbrough and his colleagues

February 25, 1959

Dr. Worling
Industrial Hygiene Laboratories, Inc.
1610 Tremaine Road
Northbrook, Illinois 60062

Dear Dr. Worling:

Confirming our telephone conversation (2-25-59), please make sure that feather samples from both the control chickens and the ones fed halibut, DDT, and rotenone are included with urine samples from the chicken feeding studies.

Best regards.

Sincerely,

R. Scott Tucker
Applied Sciences Section

cc: R. D. Keller
W. R. Richard
E. Wheeler

NEV 031191

780729