To S.E. Area Offices
Commercial Fisheries Division
Juneau
Ketchikan
Sitka
Wrangell

Norman D. Johnston
Area Management Biologist
Petersburg,

April 29, 1963

Toxicants for Fresh Water
Leeches.

Attached is correspondence on subject. It may never be of any use to any of you, but can be filed with much of the other useless information you receive. I will not be offended if it is ash-canned.

I'm writing you in hopes that you can route this letter to the proper authority if you personally do not have the information at hand. My question pertains to lake poisoning. As I recall Bob Borovicka was your authority on toxicants, but I'm not sure he is even around anymore.

Specifically there is a small muskeg lake near Petersburg which currently supports populations of stunted cutthrout and Dolly Varden trout and numerous stickleback. Our plan was to roll it over, improve the outlet stream and stock with coho. The Forest Service however has extensive plans to develop this area for recreation. As the lake is one of the few in the area that warms up during the summer it is used for swimming. There are large numbers of leeches present however which discourage most people. What the Forest Service [illegible] is for us to rid the lake of leeches while still maintaining the [illegible] producer.

I [illegible] able to [illegible] that would kill [illegible] prolonged [illegible] from [illegible] [illegible]. As I understand it Toxipene won't [illegible].

I would sure like to make P.F.D., but the possibility is remote. We might make it south next winter if my wife twists my arm hard enough.

Thanks in advance for any attention you can give this letter.

Sincerely,

ALASKA DEPARTMENT OF FISH AND GAME

By Norm Johnston

Norman D. Johnston
Area Management Biologist

[illegible]

[illegible]

[illegible]

[illegible]

Dear Norm:

Chris Jensen has asked me to provide you with information on control of leeches. I am sorry to say we can provide little information on the problem.

I do know that toxaphene and rotenone in the concentration normally used for control of fish will not kill the "critters". We did have a complete kill of lamprey with toxaphene at 1-25,000,000 but it did not kill leeches.

Fred Lewis suggests that you contact Dr. M. C. Meyer, Zoology Department, University of Maine, Orono, for suggestion to [illegible] your problem. He is an authority on leeches.

Hope you see your way clear to attend PNE meeting. Also, I've heard of your problem with the lake from other sources. Seems as though a few people were unhappy about removing spent fish after all the camping facilities were installed. You can't win!

Sincerely yours,

[illegible]
[illegible]

By

[illegible]
Coordinating Biologist

NLB:ac

S. B. PENICK & COMPANY · 100 CHURCH STREET, NEW YORK 8 · COrtlandt 7-1970

FARM CHEMICAL & INSECTICIDE DIVISION

4101 BECK AVENUE
ST. LOUIS 16 MO
PROSPECT 2 6810

[illegible]
[illegible] Dept. of Fish and Game
[illegible]

[illegible]

After receiving your letter of [illegible] requesting a toxicant for [illegible] control, I wrote to the Fish Control Lab at LaCrosse, Wisconsin for the information.

I [illegible] their long drawn out letter [illegible] by quoting their last sentence, "no recommendations can be made at this time or are there any materials on the market labeled for this use". That's a typical [illegible] reply. [illegible] full page of typewritten space to say "no recommendations." Sorry I couldn't give you [illegible] help on this.

Very truly yours,

Edward A. Zagar
Fisheries Biologist
Farm Chemical & Insecticide Division

EAZ/mn
Enc.

SPORT FISHING INSTITUTE

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
BUREAU OF SPORT FISHERIES AND WILDLIFE

P. O. Box 862
La Crosse, Wisconsin
[illegible], 1962

[illegible]
[illegible]
[illegible] Pesticide Division
[illegible] Sanick & Company
[illegible] Avenue
[illegible] Louis 10, Missouri

[illegible]

[illegible] chemicals [illegible]

[illegible] biological [illegible] the [illegible]. Most prevalent among these groups are the [illegible] complexes which have shown parasiticidal activity. The anthelmintic agents of Thomas Corporation such as CO-RAL may have good potential in controlling the related invertebrates. Many of the compounds in these groups are registered for use in animal husbandry as parasiticides but none have been labeled for use in water. Therefore, it seems unlikely that such materials could be used except on an experimental basis. Such use would or must conform to the FDA Regulations concerning the Investigational Drugs in accordance with the Kefauver-Harris Amendment of 1962 concerning the use of animals as food. I'm sure you are aware of the problems involved in recommendations of test chemicals and precautions necessary to avoid hazards.

Another group of compounds which may find use in this area would be the molluscicides and anti-fluke agents. Bayer 73 and related chloro-hydro-nitro- substituted biphenols and some of the carbamates show potentials in this area. Again, these compounds have been cleared for limited use which does not include fisheries. Therefore, the only encouragement we can give to you or your contact with Alaska Department of Fish and Game, is that we are working on such fishery control agents but no recommendations can be made at this time or are there materials on the market labeled for this use.

Sincerely yours,

Charles R. Walker
Biochemist
Fish Control Laboratory

cc: Dr. Lennon

UNIVERSITY OF MAINE
ORONO, MAINE

DEPARTMENT OF ZOOLOGY

[illegible] ... March 13 [illegible] ... for effective production [illegible]. [illegible] (1950, Amer. J. Hyg. 52: 25[illegible]-307 [illegible] 2991), reported a mixture of copper sulphate and lime was effective for as long as three years when applied under favorable weather conditions.

Judging by the number of inquiries received [illegible] are an [illegible], but you can rest assured that the problem is never under [illegible]. [illegible] might suggest, however, that [illegible] and/or meat scraps---[illegible] the better---be distributed around [illegible] edge of the [illegible] where the [illegible] is concentrated. [illegible]

[illegible]

Yours sincerely,

Marvin Clinton Meyer
Professor of Zoology

MCM/jb