AMERICAN BIRD CONSERVANCY

Bringing back the birds

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Dear Ms. Echeverria,

American Bird Conservancy, which works to conserve birds across the Americas, submits these comments on the National Marine Fisheries Service ("NMFS") draft revised chlorpyrifos, diazinon, and malathion biological opinion, Docket Number EPA-HQ-OPP-202-172.

American Bird Conservancy ("ABC") is deeply concerned about the effects of pesticides on the environment, bird populations, and human health. ABC has been actively involved in pesticide regulations for the past twenty years, providing expertise and analysis on a range of chemical registration and application issues.

In many, if not most, cases the effects on birds of pesticides are not limited to primary ingestion of a toxin. Rather, the cascading effects of pesticide applications impact bird populations through alteration of landscapes, contamination of water sources, and collapse of food webs.[1] For instance, pesticide-contaminated runoff in a freshwater body may kill non-target aquatic invertebrates,[2] an important food source for many bird species. This limited food availability is far deadlier to birds than the actual ingestion of a pesticide.

Additionally, in the real world, birds are not exposed to one pesticide at a time, as they are in laboratory studies. Birds by necessity move between areas in search of safety, shelter, breeding opportunities, and food. Accordingly, even if a pesticide appears benign when applied in a single laboratory application, additional study of its effects is required when it is used in conjunction with other chemicals, as many pesticides are, or in a cumulative setting.[4]

Chlorpyrifos

The organophosphate insecticide chlorpyrifos has been problematic in the United States for decades. It is not only inordinately linked to the death of birds, mammals, and fish, but also presents a significant risk to human health**.** The EPA upheld its ruling to cancel all tolerances of chlorpyrifos on food crops meant for domestic consumption. The cumulative risks of chlorpyrifos exposure were deemed to be potentially harmful.

This final rule represents an important step forward. EPA's Biological Evaluation of chlorpyrifos in 2017 stated 97 percent of all wildlife is likely to be negatively affected by the pesticide, including 103 endangered species of birds.[5] Because "the action area for chlorpyrifos covers the entire US, including its territories," all endangered birds *are potentially* affected by chlorpyrifos, including two dozen populations with fewer than 2,000 individuals remaining.

Aside from the risk of birds directly ingesting chlorpyrifos when mistaking it for seeds and grit, chlorpyrifos endangers birds by collapsing entire food chains. Chlorpyrifos was shown to be likely to adversely affect 219 aquatic invertebrates. Aquatic insects are hypersensitive to chlorpyrifos and suffer similar fates to target pests. When they die from chlorpyrifos poisoning, an important food source for birds and other wildlife is gone.

Additionally, a 2017 study showed that sparrows which ingested chlorpyrifos at levels below those to which they will likely be exposed lost the ability to orient themselves, making migration impossible.[6] These birds did not recover the ability to navigate even after the chlorpyrifos had left their systems. It is reasonable to assume that the same effects will be seen in sea birds.

The draft biological opinion does not directly examine any bird species but does acknowledge that seabirds and terrestrial birds are likely to be affected by the loss of important food sources like salmon, trout, and invertebrates.[7]

The EPA recently upheld a ruling revoking all tolerances of chlorpyrifos on food intended for domestic consumption. The ruling left a loophole open for non-agricultural uses of chlorpyrifos, as well as crops produced for export. EPA has demonstrated that chlorpyrifos poses a significant threat through agriculture and therefore should extend this protection to recipients of exported agricultural products as well as all Americans who may interact with chlorpyrifos in private applications.

Therefore, ABC asks that all registered uses of chlorpyrifos be cancelled, all tolerances from any use of chlorpyrifos be revoked, and no new registrations of chlorpyrifos be approved by the EPA.

Diazinon

Diazinon has a track record of killing non-target species, such as hundreds of pigeons and grackles in Orlando which ate insects killed by diazinon.[8] The bioaccumulation factor of organophosphates like diazinon is devastating; the toxins travel through the food web and kill birds, mammals, and reptiles which are acting as biological controls of the very pests targeted by the toxins.

Diazinon use has been declining precipitously since 2004; small uses are employed in niche farms and industries, and so banning diazinon outright would have very little impact on the current agricultural state of the country.[9]

The World Health Organization has listed diazinon as being "likely carcinogenic to humans,"[10] yet, as in so many cases with pesticide regulation in the US, the FDA categorizes it as "not likely to be carcinogenic" to humans.[11]

The NMFS report categorizes diazinon as likely to jeopardize the continued existence of twenty-six listed species. Therefore, ABC asks that all registered uses of diazinon be cancelled, all tolerances from any use of diazinon be revoked, and no new registrations of diazinon be approved by the EPA.

Malathion

Malathion is an organophosphate insecticide which has been linked to the deaths of birds since the 1960s.[12] Malathion was applied as a mosquito adulticide for the express purpose of helping people and imperiled birds, yet when malathion was widely used in sprays, the golden-cheeked warblers exposed not only took up the toxin via sprayed insects, but also were exposed through feather coating and toxins on their feet when they landed on sprayed surfaces.[13] A massive die-off resulted.

More directly, the EPA in consultation with the US Fish and Wildlife Service found malathion to be likely to adversely affect **97% of federally listed species** in their 2017 draft biological opinion.[14] The NMFS draft biological opinion lists 37 endangered species as likely to be adversely affected by malathion. The opinion does not assess bird species which may be affected by malathion via spray drift or run off as it is being applied.

Additionally, malathion has been found to be extraordinarily deadly to aquatic invertebrates, fish, and seagrass.[15] Malathion also threatens corals and other life-fostering marine organisms.

Therefore, ABC asks that all registered uses of malathion be cancelled, all tolerances from any use of malathion be revoked, and no new registrations of malathion be approved by the EPA.

SUMMARY OF REQUESTS

1. Cancel all registered uses of these three pesticides.
2. Revoke all tolerances of these three pesticides in all uses.
3. Prevent all forthcoming registrations of these three pesticides.

We respectfully submit these comments and appreciate the work of the Environmental Protection Agency.

Sincerely,

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