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Organochlorine Compounds in North American Grey Wolves (Canis Lupus)

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Poster Presentation P34

ORGANOCHLORINE COMPOUNDS IN NORTH AMERICAN GREY WOLVES (CANIS LUPUS)

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Grey wolves (Canis lupus) historically ranged in North America from 20° North latitude in Mexico throughout most of the U.S. and Canada. The grey wolf population has been declining since 1900 and today sizeable grey wolf populations are restricted to Alaska, Canada, Idaho, Wyoming, Montana, Michigan, Minnesota, and Wisconsin. Since the grey wolf is at the top of its food chain, this species may contain high levels of organochlorine (OC) pesticides (e.g., DDT) and metabolites due to biomagnification. However, no studies have documented OC pesticide contamination in grey wolves throughout their North American range, which is the purpose of this study. This ongoing study is being performed in collaboration with the U.S. Fish and Wildlife Service, state wildlife agencies and Canadian Wildlife agencies. Wolves were either found dead or they collected via lethal control methods in Wyoming, Montana, Idaho, the Northwest Territories, Alberta, and Alaska. The presence of OC compounds in wolves will be determined via gas chromatography. If detected, OC contamination patterns will be analyzed in relation to sex, age, diet and latitude. The knowledge gained from this study may have implications for managing other top predators in North America (e.g., red wolves (Canis rufus), Mexican grey wolves (Canis lupus baileyi) grizzly bears (Ursus arctos), and polar bears (Ursus maritimus).