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# Levels of Organochlorine Compounds and Heavy Metals in North American Grey Wolves (*Canis lupus*)

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**Presenter Information**

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Poster Presentation P5

**LEVELS OF ORGANOCHLORINE COMPOUNDS AND HEAVY METALS IN  
NORTH AMERICAN GREY WOLVES (*CANIS LUPUS*)**

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and Given Harper\* and Jeff Frick\*  
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Sizeable grey wolf (*Canis lupus*) populations in North America are currently found in Alaska, Canada, Idaho, Michigan, Minnesota, Montana, Wisconsin, and Wyoming. Due to their location at the top of terrestrial food chains throughout their range, grey wolves may contain high levels of organochlorine (OC) pesticides (e.g., DDT) and metabolites due to biomagnification. Wolves may also be exposed to heavy metals (e.g., aluminum, cadmium, copper, iron, lead and zinc), which can reach high concentrations in areas where minerals have been mined. However, no studies have documented OC pesticides or heavy metals in grey wolves throughout their North American range, which is the purpose of this collaborative study with the U.S. Fish and Wildlife Service and with state and Canadian wildlife agencies. Wolves from Alaska, Idaho, Minnesota, Montana and the Yellowknife region of Canada were either found dead, trapped or were collected via lethal control methods. OC levels in wolf kidneys were determined via gas chromatography and levels of heavy metals were quantified via Inductively Coupled Plasma Emission Spectrometry. Levels of OCs and heavy metals are being analyzed statistically in relation to sex, age class and latitude. This study will provide information on the extent to which OC compounds and heavy metals are present in North American ecosystems.