

EFFECTS ON GULF SPECIES ESTABLISHED

Deepwater Horizon crude oil impacts the developing hearts of large predatory pelagic fish

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The Deepwater Horizon (DWH) oil spill in the Gulf of Mexico in 2010 resulted in the release of millions of gallons of crude oil into the water column. The spill and subsequent oil spill response operations have had significant impacts on the Gulf of Mexico ecosystem. This study examines the effects of DWH crude oil on the developing hearts of large predatory pelagic fish, including Gulf of Mexico killifish (*Fundulus heteroclitus*), Gulf of Mexico silverside (*Menidia menidia*), and Gulf of Mexico snook (*Lutjanus synalotus*).

Embryonic and juvenile exposure to DWH crude oil resulted in significant developmental abnormalities in the hearts of these species. These abnormalities included changes in heart morphology, function, and gene expression. The findings suggest that DWH crude oil has had widespread impacts on the Gulf of Mexico ecosystem, affecting the health and survival of large predatory pelagic fish.

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Acute Embryonic or Juvenile Exposure to Deepwater Horizon Crude Oil Impairs the Swimming Performance of Mahi-Mahi (Coryphaena hippurus)

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The Deepwater Horizon (DWH) oil spill in the Gulf of Mexico in 2010 resulted in the release of millions of gallons of crude oil into the water column. This study examines the effects of DWH crude oil on the swimming performance of Mahi-Mahi (*Coryphaena hippurus*) embryos and juveniles. Exposure to DWH crude oil resulted in significant impairments in swimming performance, including reduced swimming speed and endurance.

The findings suggest that DWH crude oil has had significant impacts on the swimming performance of Mahi-Mahi embryos and juveniles. These impacts may be due to changes in muscle function, energy metabolism, or other physiological processes. The results highlight the need for further research on the effects of DWH crude oil on marine life.

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Genomic and physiological footprint of the Deepwater Horizon oil spill on resident marsh fishes

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The Deepwater Horizon (DWH) oil spill in the Gulf of Mexico in 2010 resulted in the release of millions of gallons of crude oil into the water column. This study examines the genomic and physiological footprint of the DWH oil spill on resident marsh fishes. The findings suggest that DWH crude oil has had significant impacts on the genomic and physiological health of these species.

The results of this study indicate that DWH crude oil has had widespread impacts on the genomic and physiological health of resident marsh fishes. These impacts may be due to changes in gene expression, protein levels, and other physiological processes. The findings highlight the need for further research on the effects of DWH crude oil on marine life.

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Multitissue Molecular, Genomic, and Developmental Effects of the Deepwater Horizon Oil Spill on Resident Gulf Killifish (Fundulus grandis)

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The Deepwater Horizon (DWH) oil spill in the Gulf of Mexico in 2010 resulted in the release of millions of gallons of crude oil into the water column. This study examines the multitissue molecular, genomic, and developmental effects of the DWH oil spill on resident Gulf killifish (*Fundulus grandis*). The findings suggest that DWH crude oil has had significant impacts on the multitissue molecular, genomic, and developmental health of these species.

The results of this study indicate that DWH crude oil has had widespread impacts on the multitissue molecular, genomic, and developmental health of resident Gulf killifish. These impacts may be due to changes in gene expression, protein levels, and other physiological processes. The findings highlight the need for further research on the effects of DWH crude oil on marine life.

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