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Experts: Costa Concordia Could Wreak Ecological Havoc on Italy's Largest Marine-Protected Area

As salvage crews work to secure the wreck of Costa Concordia to the rocks of her resting place on Giglio island, large waves forecast in the next day and a half could cause the ship to break up or sink. This could dump 2,300 tons or 500,000 gallons of fuel into the intertidal zone of Tuscan Archipelago Natural Park, the largest marine protected area in Italy. An ecotoxicologist from The Institute of Environmental and Human Health at Texas Tech University can discuss the possible outcomes if fuel begins to leak.

Written by [John Davis](#)



Pitch

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Expert

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Talking Points



- Leaking fuel could enter the food chain, as plankton, juvenile shrimp, crabs and fish larva are exposed and begin absorbing it into their bodies.
- Birds and mammals exposed to leaked fuel could face hypothermia after fuel strips fur and feathers of oils that keep animals warm in the water.
- Using sorbents and sorbent booms will be important in the event of a fuel spill. The more fuel leaks into the intertidal areas and onto shore, the more impact it will have.
- Depending on the area affected, a fuel spill could have long-term consequences on the fishing industry near the area.

Quotes

- "The thing about it that makes it quite unique is that, unlike an oil barge, it's carrying a massive amount of fuel on top of a variety of other products such as solvents, paints and all sorts of chemicals that it takes to run a city on the water. The consequences of this event could become even more significant. It's like you took a small city, turned it upside down in the ocean, and now you're also dumping sewage, oils, fuels, cleaners and other products right into the water." – Ron Kendall
- "About the only thing that could move a ship this size easily is Mother Nature, and she could just about do it here in the near future." – Ron Kendall
- "A spill could have deleterious impact on the aquatic fauna including corals, fish, and marine mammals as well as the terrestrial fauna that rely on the marine ecosystem, such as fish-eating birds. The area of the wreck is a declared sanctuary for marine mammals, fin whales, sperm whales and various species of dolphins that could potentially be affected by exposure to fuel." – Celine Godard-Codding
- "It is too early to speculate on possible impact on the fishing industry. However, if a spill occurs, it could affect not only the current seafood safety, but possibly interfere with future seafood supply if it interferes with fish spawning and/or eggs and juvenile survival." – Celine Godard-Codding



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Celine Godard-Codding is an assistant professor at [The Institute of Environmental and Human Health \(TIEHH\)](#).

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Ron Kendall is a professor and chairman of the [Department of Environmental Toxicology](#) and the founding director of [The Institute of Environmental and Human Health](#).

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