

- **Pollution with Oil spill**

- **An oil spill:** is the release of a liquid petroleum hydrocarbon into the environment, especially marine areas, due to human activity, and is a form of pollution. The term is usually applied to marine oil spills, where oil is released into the ocean or coastal waters, but spills may also occur on land.

Oil spills may be due to releases of crude oil from • tankers, offshore platforms, drilling rigs and wells, as well as spills of refined petroleum products (such as gasoline, diesel) and their by-products, heavier fuels used by large ships such as bunker fuel, or the spill of any oily refuse or waste oil

- Oil spills penetrate into the structure of the plumage of birds and the fur of mammals, reducing its insulating ability, and making them more vulnerable to temperature fluctuations and much less buoyant in the water.
- **Cleanup and recovery from an oil spill** is difficult and depends upon many factors, including the type of oil spilled, the temperature of the water (affecting evaporation and biodegradation), and the types of shorelines and beaches involved. Spills may take weeks, months or even years to clean up.

- **characteristic of oil spill**
- **Oil spills can have disastrous consequences for society**; both economically, environmentally, and socially. As a result of these consequences oil spill accidents can initiate intense media attention and political uproar. Multiple kinds of actors in society can become involved in a political struggle on how government should respond to oil spills and what actions prevent them from happening. Despite substantial national and international policy improvements on preventing oil spills adopted in recent decades, large oil spills keep occurring.

- **Effects of oil spill on the environmental**
- **Oil spills at sea** are generally much more damaging than those on land, since they can spread for hundreds of nautical miles in a thin oil slick which can cover beaches with a thin coating of oil. This can kill seabirds, mammals, shellfish and other organisms it coats.
- **Oil spills on land** are more readily containable if a makeshift earth dam can be rapidly bulldozed around the spill site before most of the oil escapes, and land animals can avoid the oil more easily.

- **Effect of oil spill on animals**
- **1-Oil penetrates into the structure of the plumage of birds and the fur of mammals, reducing its insulating ability, and making them more vulnerable to temperature fluctuations and much less buoyant in the water.**
- **2-Animals who rely on scent to find their babies or mothers cannot due to the strong scent of the oil. This causes a baby to be rejected and abandoned, leaving the babies to starve and eventually die.**
- **3-Oil can impair a bird's ability to fly, preventing it from foraging or escaping from predators.**

- 4-As they preen, birds may ingest the oil coating their feathers, irritating the digestive tract, altering liver function, and causing kidney damage.
- 5-Together with their diminished foraging capacity, this can rapidly result in dehydration and metabolic imbalance.
- 6-Some birds exposed to petroleum also experience changes in their hormonal balance, including changes in their luteinizing protein.
- 7-The majority of birds affected by oil spills die from complications without human intervention.

- 8-Some studies have suggested that less than one percent of oil-soaked birds survive, even after cleaning, although the survival rate can also exceed ninety percent, as in the case of the Treasure oil spill.
- 9-Heavily furred marine mammals exposed to oil spills are affected in similar ways.
- **Oil coats** the fur of sea otters and seals, reducing its insulating effect, and leading to fluctuations in body temperature and hypothermia. Oil can also blind an animal, leaving it defenseless. The ingestion of oil causes dehydration and impairs the digestive process. Animals can be poisoned, and may die from oil entering the lungs or liver.



A surf scoter covered in oil as a result of the 2007 San Francisco
Bay oil spill

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