

# The trauma of being cleaned

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**V**ALDEZ — Humans cannot possibly imagine the trauma, terror and shock suffered by birds rescued from the Prince William Sound oil spill. Unless, perhaps, they've been captured by alien beings.

"I think these birds must feel the same feelings as people who've been picked up and taken to UFOs," says

Jessica Porter, the Bird Rescue Center's veterinarian. "What they go through here must be the most incomprehensible, terrifying, awful thing."

The terror begins when oil contaminates a bird's feathers and lasts until the animal is finally freed — or dies.

"Think about it," Porter says. "First the bird is crammed into a net. Then it's stuffed into a box or bag. It

has food crammed down its throat. It's put into a hot-wash tub and scrubbed while being held down by creatures that pose a natural threat — you have to remember that we're predators to birds. They don't understand we're trying to help. After washing, the bird is put into a sink and rinsed with a jet spray, then it's thrown into a blow-dryer, picked up again and crammed (for future handling)

"When you consider all the birds have to go through, the clean-up is a survival test in itself."

As of Wednesday, 306 birds had been brought to Valdez's rescue center; 189 of those had died. Another 61 had been killed by euthanasia, to prevent further suffering.

"Euthanasia is controversial in a lot of places, but it's a sad fact of life in an operation like this," Porter says. "If a bird has no chance for recovery, there's no reason for it to continue suffering. We put the birds to sleep painlessly, with an injection

to the heart or abdomen; they're dead within seconds."

Some species survive their oil-induced traumas better than others. Of the birds rescued since the tanker Exxon Valdez spilled 11 million gallons of crude oil 37 days ago; loons have suffered the highest mortality rate. Of seven brought to the rescue center, only one has survived.

"Loons always do the worst," says Porter, a staff member of the International Bird Rescue Center at San Juan Island, Wash. and veteran of nu-

merous oil-spill rescue operations over the past 25 years. "Loons are primitive birds; their feather structures are slightly different than other species and more easily damaged by oil. And they don't do very well

As if loons didn't have enough problems, the March 24 spill occurred during their springtime moult.

"You couldn't ask for anything worse," Porter says.

Diving birds such as cormorants, murres and grebes have also fared rather poorly, while ducks such as harlequins, scoters and old squaws have generally done well.

The primary difference, says Porter, is preening, the process in which birds use their beaks or bills to clean and trim feathers.

Ducks tend not to preen as much as the sharp-beaked diving birds, so they swallow less oil. Post-mortems have demonstrated that ingested oil has done extensive damage to oiled birds' livers, kidneys and intestinal tracks.

Sea birds doing best in the spill's wake have been gulls. No surprise there, Porter says.

"Gulls usually make up a real, real small part of a spill's casualties," she notes. "Gulls fly over the top (of the water); they see something and dip down, so they tend not to get right in the oil. Most of the gulls we've seen have been relatively lightly oiled."

And the few gulls brought in for cleaning have all survived.

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The number of reported bird deaths has dropped noticeably the past couple weeks. The declining mortality rate was expected, Porter says, because the spill has changed in character.

Early on, the Prudhoe Bay crude was rich in volatiles, including toxic fumes. Cold air tended to trap and slow the evaporation of those volatiles, which were then inhaled by sea birds (and otters). Now most of the gases have dissipated and the oil's toxicity has diminished.

"Don't get me wrong, the crude is still toxic," Porter says, "but less than it was in the beginning."

The chief threat to birds is now mechanical rather than physiological. Birds contaminated by the oil lose their inability to stay warm, float and dive. It doesn't take much to kill; a quarter-sized droplet is sufficient.

"You have to understand how a bird is waterproofed," Porter says.

Birds have two layers of feathers. Next to the skin is an insulating underlayer of down; that's covered by an interlocking network of feathers which acts as a sort of dry suit.

When the protective feathery network is clean, it traps pockets of air and locks water out. But when soiled, the outer feathers begin to clump or mat, the network begins to develop leaks and water soaks the down, which then loses its ability to insulate.

"If a (sea) bird becomes oiled, it's only a matter of time

before it dies," Porter says. "They're all gooped up, so they can't float, they can't dive and they're susceptible to hypothermia. All their energy is directed at cleaning themselves."

More than 2,500 birds have already been found dead within Prince William Sound, but those numbers reflect only a small percentage of the actual death toll.

"There's no way to guess the number, but it's thousands and thousands," Porter says. "Birds don't stick around long after they die. They sink, or they're eaten."

The presence of dead, oiled birds on beaches presents a danger to scavengers such as eagles, ravens, bears and foxes. At least one bald eagle is known to have died from oil ingestion. It's likely many others face a similar fate.

"A lot of eagles are dying, I'm sure of it," Porter says. "It's real obvious that the presence of (oil-contaminated) birds will affect predators. Certainly it takes a lot more oil to kill a bear than a bird, but how much oil is something we don't know. And there's lots of dead birds on the beaches for bears to feed on."

Birds which survive the spill — and the rescue operation — will eventually be returned to the wild. About 60 "patients" have been released so far.

Some species, however, must endure a waiting period of several weeks. Cormorants, common murre, auklets and puffins are known to nest in the spill area. If released, "they'd go right back, to within a half mile of where they were found," Por-

ter says. Chances are good those birds would become re-oiled; therefore biologists and veterinarians have decided to hold them until either the spill is cleaned or the nesting season ends.

Whether its released sooner or later, any bird cleaned of oil must pass a test before being given its freedom. The bird is placed in a saltwater float tank for at least two hours, then its downy layer is checked for signs of dampness. Only if the down is completely dry will the bird be released from the rescue center's care.

"A lot of people don't realize the importance of checking the down," Porter says. "The biggest crime would be to release a bird that's not completely dry, because such a bird will end up slowly dying of hypothermia or starvation."

There are no guarantees even for those released in the best possible condition. Biologists estimate that perhaps half the birds returned to their natural environment will recover from their oil-spill trauma.

As Porter notes, "Birds are used to a rough life, but not this kind of treatment. Here, only the strongest of the strong survive. And really, it's a wonder that any of them survive."