

Case Study of a wildlife response to a fuel oil spill in the Glomma River, Norway

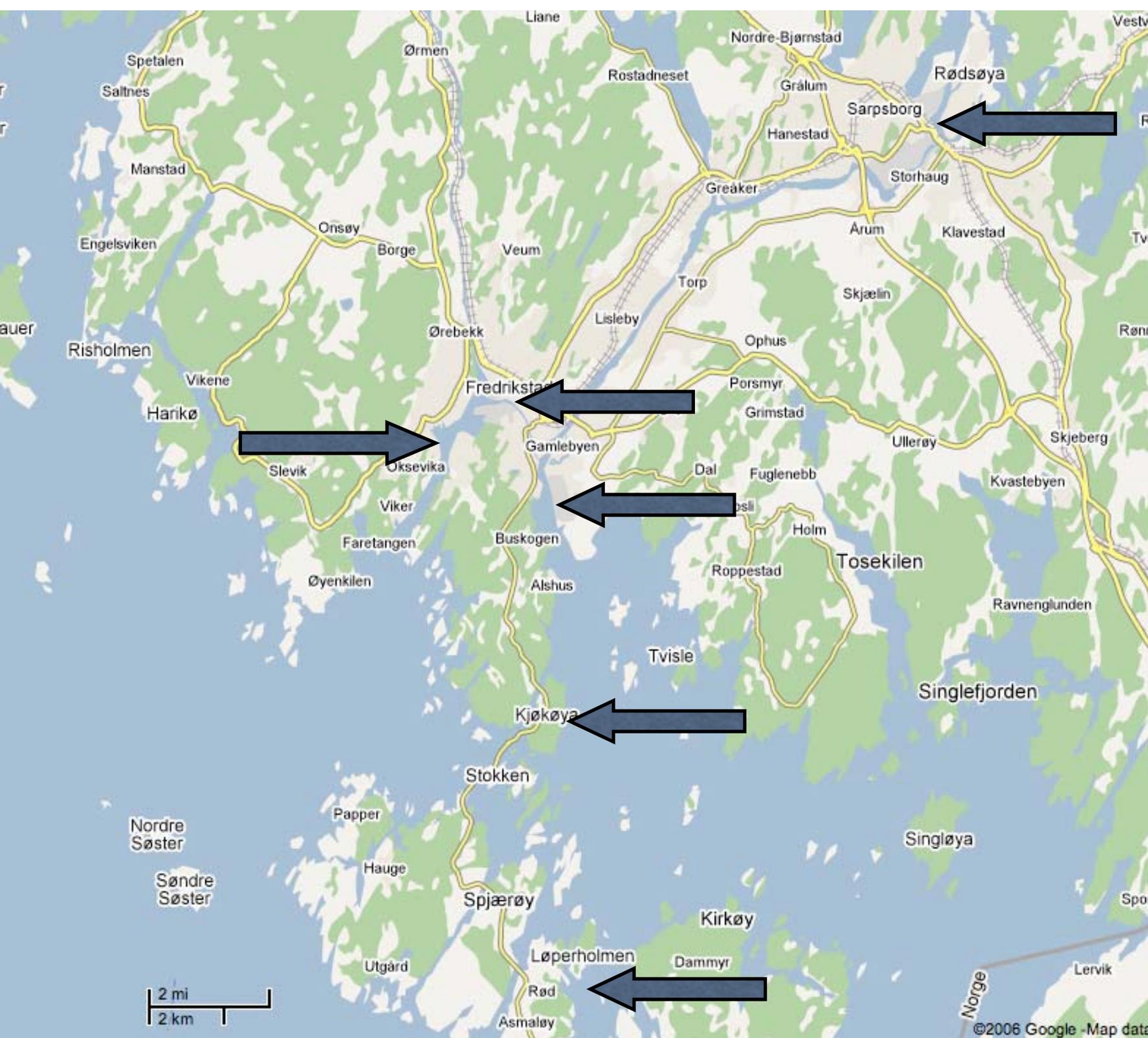
**Curt Clumpner - International Bird Rescue Research Center
IFAW Emergency Relief Oiled Wildlife Team**

Glomma River Spill

- Occured March 4, 2006
- Sarpsborg, Norway
- ~200 barrels of fuel oil
- Transfer from ship
- Discovered March 8 when ice broke up
- Currents had carried oil downstream to ocean inlet at Fredrikstadt



Fredrikstadt



Spill Site

Oiled birds

Wildlife Center

Historical Context

- **Wildlife Response in Norway**
 - **Prior to January 2004**
 - **Government supported killing of oiled birds**
 - **Post January 2004**
 - **Rocknes Wildlife Response**
 - **Glomma River Wildlife Response**

Wildlife Team Organizations

NGO's

Norwegian Oiled Wildlife Response Team
(NOW)

Naturvernforbundet (FOE Norway)

NOF - Østfold (Norwegian Ornithological
Society)

Frivillige

IFAW Emergency Relief Team - Oiled
Wildlife

SeaAlarm/Project Blue Sea

RP - Borregaard - Chemical Div, Orkla
Group

Challenges

Initial Delay

Notification 5 days after spill

First wildlife responder arrived March 10

Lack of wildlife planning/experience

Identification and outfitting of facility

Weather

Field Challenges

Weather

Animal's condition

Lack of experience

**Volunteer field crews
mainly weekends**



Photos: SWAN



Photos: SWAN

Protocols

- Intake
- Stabilization
- Cleaning
- Conditioning
- Release

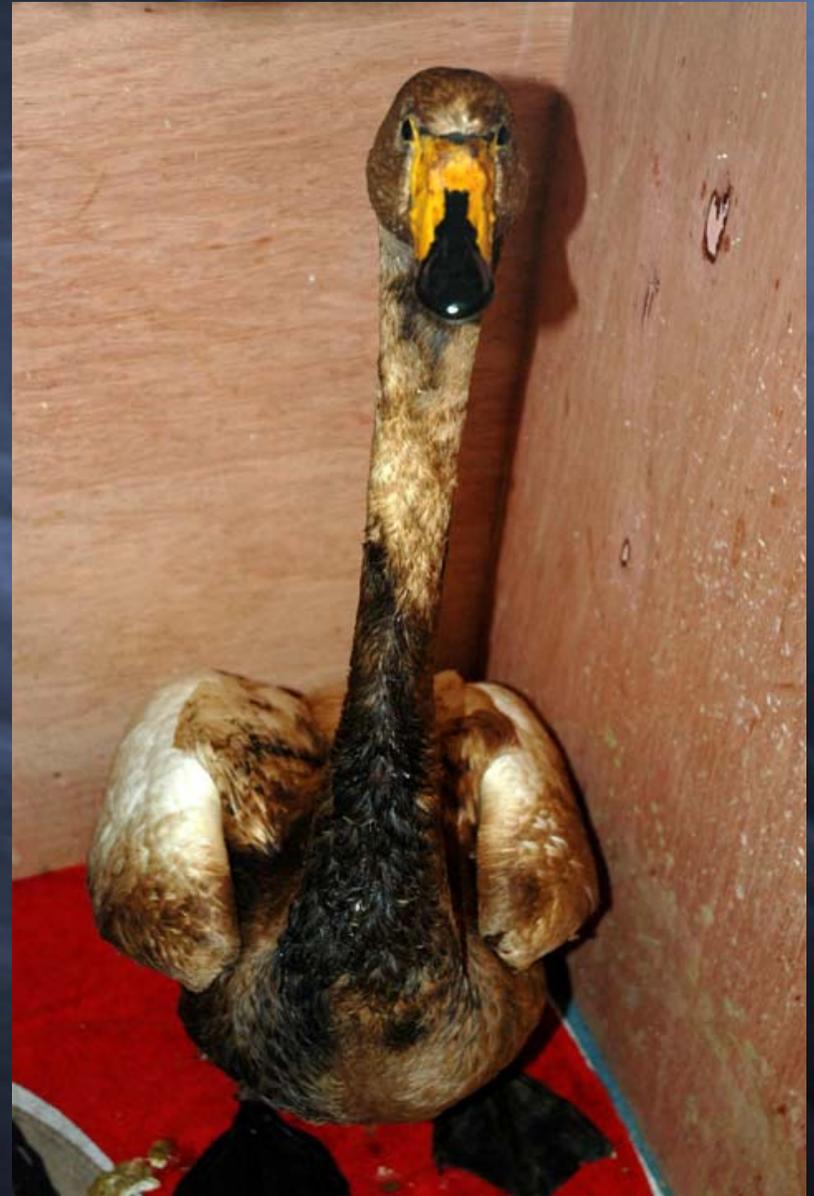


Photo: Marie Travers

Intake

- Start individual documentation
- Physical exam
 - Identify species
 - Evaluate condition
 - Evaluate oiling
 - Weigh
- Blood sample
- Temporary Band



Stabilization

- Supportive care
 - Ambient Temperature
 - Fluids
 - Gavage nutritional formula
 - Encourage self feeding





QuickTime™ and a
DV/DVCPRO - NTSC decompressor
are needed to see this picture.

Cleaning

Evaluating for cleaning

Washing

Rinsing

Drying





Conditioning Challenges

- **Weather**
 - **Mostly below freezing temperatures**
- **Species**
 - **Mostly very large**
- **Lack of Pools**
 - **Had to be built**







Release Criteria

Waterproof

Physical Exam

Weight within normal ranges

Blood values within normal ranges

All injuries healed



Photos SWAN

Additional Issues



Media

Avian Influenza



Oiled Species in Care

- Whooper Swan *Cygnus cygnus*
- Mute Swan *Cygnus olor*
- Mallard *Anas platyrhynchos*
- Goosander *Mergus merganser*
- Herring Gull *Larus argentatus*

Summary-Oiled Birds

Species	In care	Released	Died	Euthanized
	3	3		
	26	25		1
	1	1		
	21	15	2	4
	1	1		

Conclusions

- **Sometimes even with delays, bad weather and little preparation oiled birds can be successfully rehabilitated**
- **Species make a difference**
- **Globally, the acceptance of wildlife response during an oil spill continues to grow**

Thanks to

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- **Pål Bugge**
- **Marie Travers**
- **Valeria Ruoppolo**
- **All of the volunteers (80) for 1300 hours of help**
- **As well as IFAW, NOW, Naturvernforbundet, NOF, DeNoFa, Borregard and everyone in the community who donated supplies and equipment**