



Oiled Wildlife Response, Preparedness and Cooperation

**Ostend, Belgium
October 1-3, 2007**

Proceedings



Dear Conference attendee,

Welcome to the 4th International Sea Alarm Conference! We are very pleased that again we have been able to organise this event, this time in Ostend, Belgium.

The choice for Ostend was of course related to the *Tricolor* incident that happened near here in early 2003. In the history of oiled wildlife response in Europe, this incident can be considered as a milestone event. It was a wake up call, not only for Belgium but many more countries in Europe. The incident, in which thousands of dead and live birds arrived on the shore over just a few days, demonstrated that a basic level of preparedness to respond to oiled wildlife is essential and that it should be an integrated part of any oil spill response plan.

Sea Alarm Conferences aim to provide an overview of cutting edge issues and to identify which steps should be taken to continue progress towards optimised national and international preparedness for dealing with oiled wildlife incidents in Europe. Since the last Conference in 2004 (Balbriggan, Ireland), many new developments have taken place that directly relate to the conclusions and recommendation from that meeting.

The success of this series of Conferences should be that they provide a regular platform for actors with many different areas of expertise and involvement to report on their achievements, to exchange views on key issues and together discuss strategies for future developments.

We are delighted that this Conference, with the title *Oiled Wildlife Response, Planning and Cooperation*, has attracted over 80 participants. We are confident that the very interesting and varied programme that will run over the next three days will stimulate constructive discussion, help cement old friendships and forge new alliances, all to the benefit of oiled wildlife.

I should like to thank the sponsors, Fairy, the Fast Oil Spill Team (FOST), the Royal Society for the Prevention of Cruelty to Animals (RSPCA), the Bird Protection League Flanders (Vogelbescherming Vlaanderen), the International Fund for Animal Welfare (IFAW) and City Harbour Ostend, for their important contributions towards the realisation of this event.

I am also grateful to the co-organisers, the Flemish Marine Institute (VLIZ), the Royal Belgian Institute of Natural Sciences (MUMM/BMM), the Wildlife Rehabilitation Centre Ostend (VOC Oostende), Tourism Ostend, and the members of the Programme Committee for their assistance in bringing the Conference together.

On behalf of all mentioned, please enjoy the Conference and your stay in Ostend!

Best regards,

Hugo Nijkamp
Director



Oiled Wildlife Response, Preparedness and Cooperation

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Jan Haelters, BMM/MUMM
Jan Seys, Flanders Marine Institute
Roser Gasol, Sea Alarm Foundation
Hugo Nijkamp, Sea Alarm Foundation (Chair)

In cooperation with
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International



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¹ The contents of these proceedings will be available from the conference website (<http://conference.sea-alarm.org>). Power point presentations will be added after the Conference.

Useful Information

Travellers

There are frequent trains between Brussels airport and Ostend. You can find time schedules on the internet via <http://www.b-rail.be/main/E/index.php>.

After arrival in Ostend railstation, The Thermae Palace Hotel (where the Conference will be held), can be easily reached by local public transport. A regular tram leaves the Ostend railway station several times an hour. Take the direction “De Panne” and get off at either the “Zwembad” or “Wellington Renbaan” stop. Of course you can get a taxi too, which will cost somewhere between €5 and €10.

If you're planning to come by car, you should know that there is a paid parking space at the Thermae Palace hotel. In case you want to park your car there, please let us know in advance, so that we can make an arrangement with the hotel to let you park for free.

Conference Venue

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Registration desk

The conference registration desk can be found at the entrance of Room Fabiola, where the conference will take place. On registration you will receive your badge, a book with the programme and abstracts, an envelope with voucher(s) for the conference dinner and drink tickets, a city map and other relevant information.

The desk will be open:

Sunday, 16:30 – 18:00 and 20:00 – 21:30

Monday, 8:30 – 10:00 and during coffee breaks

Tuesday, 8:30 – 9:00 and during coffee breaks

Wednesday, 8:30 – 9:00 and during coffee breaks

Internet during the Conference

The Thermae Palace provides wireless Internet (4€ for 30 minutes; €7 for 60 minutes; €20 for 24 hours). One public computer is located near the lobby next to the elevator, another can be found in the hotel's conference centre.

Icebreaker

For those participants who arrive on Sunday, we will have an informal drink in Bistro Paddock, which you will find on the ground floor of the Thermae Palace. The icebreaker starts at 2100. You will find some free drink coupons in your registration pack. Additional drinks can be bought at the bar of the Bistro.

Reception

On Monday, in the early evening, all participants are invited to a reception at the Town House of Ostend. We'll leave as a group from the Thermae Palace for a 10 minutes walk to the Town House. After the reception you will not have any problems to make a good choice out of a myriad of pubs and restaurants in the city centre.

Conference dinner

The Conference dinner will be held in the Venetiaanse Gaanderij, on three minutes walking distance from the Thermae Palace, along the beach. The band The Antonio's will play in the background during the dinner and will stay with us until midnight. You will find a voucher for the Conference dinner in the pack

that you receive when you register on your arrival in Ostend. All drinks during the dinner will be complementary. After the desert, you can buy your additional drinks at the bar. Also here you can use the free drink coupons from you registration pack.

Lunches

Every day, a complementary buffet lunch will be served in the Thermae Palace hotel. Your conference badge will give you access. We will provide you with directions how to find the hall where lunch is being served.

Exposition

Directly after the afternoon coffee break on Tuesday, we will leave by coach to a warehouse of the City Harbour where an exposition of mobile equipment has been set up. This will be an exiting and interesting element of the Conference which will raise a lot of discussion. We will spend more than two hours on site, visiting the different units and their owners, who will give explanations or demonstrations. After that, the bus will take us back to the hotels where we can prepare ourselves for the conference dinner the same evening.

Emergency numbers

Should you need assistance from the organizers at any time during your stay in Ostend, please take note of our mobile telephone numbers:

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Conference Programme

Monday, October 1

0900-1000 Registration

1000-1115 Opening ceremony

Mr. **Roelf de Boer**, Chairman Sea Alarm
Mr. **Paul Breyne**, Governor West Flanders
Mr. **Jan Verheeke**, Cabinet of the Flemish Minister of Environment
Mr. **Renaat Landuyt**, Federal Minister for Transport
Mr. **Yves Miroir**, Alderman Environment, City of Ostend

1115-1145 Coffee/Tea

1145-1300 Key note addresses

Shipping, oil and wildlife - a media perspective
(**Michael Grey**, Correspondent Lloyd's List)

Oil pollution and sensitive bird populations in Europe: is there a reason for concern?
(**Kees Camphuysen**, Royal NIOZ)

1300-1400 Lunch

1400-1520 Reasons for response and planning

Wildlife rehabilitation: why undertake it?
(**Ian Robinson**, International Fund for Animal Welfare, United States)

Rehabilitation of oiled birds: key issues to success, key facilities
(**Michael Ziccardi**, Oiled Wildlife Care Network, United States)

Oiled wildlife response in a European context: why plan for it?
(**Kathi Stanzel**, International Tanker Owners Pollution Federation, United Kingdom)

1520-1550 Coffee/Tea

1550-1730 Responsibilities in prevention and response

The tanker owners' commitment to clean seas and safe oil transport
(**Tim Wilkins**, Intertanko, Singapore)

The oil industry's commitment to oiled wildlife response preparedness
(**Sara Coates**, OSRL/EARL, United Kingdom)

Preventing the oiling of wildlife: Preparedness of combat at sea in Europe
(**Saskia Sessions**, EMSA, Portugal)

An oil incident as seen from a P&I perspective
(**John Warman**, London P&I Club, Piraeus, Greece)

Reception Ostend Town House

Tuesday, October 2

0900-1015 Scientific Aspects

Measuring impact on seabird populations
(**Martin Heubeck**, SOTEAG, United Kingdom)

Biomonitoring human populations after oil spills: the Prestige experience
(**Blanca Laffon**, University of A Coruña, Spain)

The RIOS project: identifying fields for research regarding oiled wildlife rehabilitation
(**Claudia Jesus-Ryden**, Nordeconsult, Sweden)

1015-1045 Coffee/tea

1045-1225 Regional seas

The MSC Napoli incident (UK 2007) – An example of an integrated response
(**Tim Thomas**, RSPCA, United Kingdom)

Increasing threats in the Baltic region
(**Kjell Larsson**, Gotland University, Sweden)

Wildlife response in the Mediterranean
(**Ezio Amato**, ICRAM, Italy)

Black and Caspian Sea: Planning and capacity building
(**Peter Taylor**, Oil Spill Training Company, United Kingdom)

1225-1225 Lunch

1225-1505 Cooperation and capacity building

Perspectives on European cooperation and new tools available
(**Hugo Nijkamp**, Sea Alarm, Belgium)

Pro-Bird and the need for building wildlife response capacity: how can skills be trained
(**Claude Velter**, Wildlife Rehab Centre Ostend, Belgium)

Voluntary rescue service: an international model?
(**Toni Jokinen**, WWF Finland, **Nina Jensen**, WWF Norway, **Agni Kaldma**, ELF Estonia)

Developing European capacity for sea mammal emergencies
(**Lenie 't Hart**, SRRC Pieterburen, Netherlands)

1505-1535 Coffee/tea

Tuesday, October 2 (continued)

1535-1755 Conference Exposition

Demonstration of the Bird Washing Machine and Mobile unit
FOST (France)

Oil Industry's Oiled Wildlife Emergency Response Equipment
OSRL/EARL (United Kingdom)

Oil spill equipment Belgium
Federal Public Service for Public Health, Safety of the Food Chain and Environment (Belgium)

Wildlife emergency mobile surgery room
AniMedics ICMAA (Netherlands and United Kingdom)

1930 Conference Dinner

Wednesday, October 3

0900-1015 Planning for oiled wildlife response

Oiled wildlife response as part of an environmental protection policy
(**Geert Raeymaekers**, Federal Public Service for Public Health, Safety of the Food Chain and Environment)

Oiled wildlife response planning in Germany
(**David Fleet**, Nationalparkamt Schleswig-Holstein, Germany)

The process of integrated planning with multi stakeholder involvement
(**Dick Knoester**, North Sea Directorate, Netherlands)

1015-1045 Coffee/tea

1045-1150 Panel discussion: Priorities for European preparedness

1150-1200 Closing address

1200-1300 Lunch

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Abstracts

Abstracts

Key note address

A media perspective on oil pollution

Michael Grey

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This paper will consider the approach of the media to marine oil pollution incidents, setting out the considerable difference in treatment of the incidents between specialist media and the general media, which tends to ignore causation, focus on the spectacular and sensational and then drop the story and the long term remediation that may be necessary and might be a story in its own right.

Specialist shipping media, rightly or wrongly, tends to concentrate on technical issues, while commenting on the way in which the lives of mariners seem to be often considered less valuable than wildlife, thus polarising arguments. The paper will look at the progress made by the shipping industry and its regulators in reducing accidental pollution, through technical and operational developments. A number of other topical issues will be considered, including:

1. Tankers and other ships as accidental polluters
2. Seafarer "awareness" and the "Mepa's"
3. Promoting environmental responsibility
4. Is there insufficient attention paid to prevention?
5. Tackling illegal "operational" pollution
6. Is wildlife rescue a "poor relation" in contingency planning?
7. Wildlife – a legitimate "stakeholder" in an incident
8. Is there too much focus on "blame"
9. The role of the media in promoting best practice.
10. Development of self-contained ships and other technical advances.

Key note address

Oil pollution and sensitive bird populations in Europe: is there a reason for concern?

Kees Camphuysen

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A general decline has been observed in marine oil pollution. Worldwide annual releases of oil have declined since the early 1970s from approximately 6 million tonnes to about one million tonnes per annum today, but a general lack of information prevents a thorough evaluation of true current levels of oil pollution at sea. Aerial surveys are one method of measuring oil pollution directly and confirm that most oil slicks occur near major shipping lanes. Technology can now detect oil slicks from space, but while this may be promising for the future, trends cannot be deduced from these data yet. Despite good intentions and collaboration from different countries, an international overview of oil pollution is impeded by difficulties in harmonising available data. Recent initiatives by the EC Joint Research Centre to develop standard nomenclature and an on-line database are described. Although oil pollution has declined over the past decades, remote sensing clearly shows that illegal discharges by vessels continue to be a major source of the chronic oil pollution in European waters.

Oil Vulnerability Indices (OVI) have been used to rank seabird species in terms of vulnerability to oil, using parameters such as behaviour, exposure, biogeographical population, reproductive potential, and reliance on the marine environment. Recent work assessing the sensitivity of different sea areas to oil pollution will be evaluated. Data required are OVIs of the species using the area, and their spatial and temporal

patterns of abundance at sea. At present, the Greenland Sea, Icelandic waters, Bay of Biscay, Portuguese and Spanish Atlantic coasts, Macaronesia, and the Mediterranean and Black Seas are data-deficient regarding their sensitivity to oil pollution. The Barents Sea, Norwegian Sea, English Channel and Celtic Sea are partly data-deficient, while the North Sea, Irish Sea, waters west of Britain, Faeroese waters and the Baltic Sea have been well studied and their sensitivity to oil pollution evaluated.

The impact of oil spills on seabird populations has sometimes been exaggerated, but oil pollution remains a major threat to European seabirds, particularly in their wintering areas. Direct effects on seabird populations, such as on survival rates and age structure, are rarely detected because specific long-term studies involving individually marked birds need to be in place beforehand, but a recent study has shown that winter mortality of adult guillemots was doubled by major oil spills, demonstrating that oil pollution can have a considerable impact on marine ecosystems. Many European seabird populations now face new pressures, as climatic shifts influence prey availability and quality, and changes in fisheries policy reduces alternate food sources. The true effects of marine oil pollution may have been masked by the increases in many European seabird populations during the second half of the 20th Century, but may now become more apparent, even with lower pollution levels.

Clean-up operations in the aftermath of oil incidents and the planning of aerial surveillances of oil at sea needs to take greater account of the specific sensitivity of seabirds and sea areas to pollution. Even in Special Areas under MARPOL, control measures have been inadequate to eliminate or reduce illegal spills significantly. If illegal discharges are still as frequent as shown from remote sensing data, states need to adopt stricter systems of port-state and flag-state control, as well as effective monitoring and sanctioning procedures. Apart from shortcomings in existing legislation and enforcement for preventing oil spills and illegal discharge of oil in sensitive sea areas such as MARPOL Special Areas under Annex I, ecological criteria used to designate such areas have failed to address seabird sensitivity to oil using data on distribution and seasonal movements. Several of the most sensitive sea areas have not been chosen as Special Areas, whereas some that have been listed are home to rather small concentrations of vulnerable wildlife. The designation of Special Areas under MARPOL is a significant step, but without enforcement such legislation is pointless. "Particularly Sensitive Sea Areas" (PSSAs) offer an enhanced tool for protecting sensitive areas and species from the impact of international shipping, in that they allow the adoption of a large range of instruments, so-called Associated Protective Measures (APMs), which are not only limited to the control of oil discharges. PSSAs identify marine areas that "need special protection through action by IMO because of their significance for recognized ecological, socio-economic, or scientific attributes where such attributes may be vulnerable to damage by international shipping activities".

Future required actions will be discussed, including the need for biologists to evaluate sea areas in terms of sensitivity to oil pollution, the need for managers to use biological advice in the planning of aerial surveillance and monitoring, and during clean up operations to minimise further wildlife damage.

Wildlife rehabilitation: why undertake it?

Ian Robinson

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With the scientific jury still out on the question of post-release survival of rehabilitated oiled birds, and very little evidence of benefits to overall populations of impacted wildlife, is the treatment of oiled wildlife more a matter of addressing the needs of people than animals?

With captivity related problems a major reason for the failure of rehabilitation efforts, are we best serving the welfare of oil victims by attempting rehabilitation?

With the high cost of physical resources, especially water - and the resultant output of waste - is there an overall ecological benefit in a rehabilitation effort?

The simplest, most cost effective way of dealing with oiled wildlife is not to attempt to rehabilitate affected individuals and to concentrate only on the 'bigger picture'. The alternative is difficult, time consuming and expensive. The wish to help the individual animal victims affected by oil is a very understandable emotional response, but can we justify our actions, and their consequences, under the hard spotlight of science?

If we, as rehabilitators, wish to be taken seriously by scientists, governments and industry, we must address these questions head on and prove by our actions that we have the answers. If we fail to do so, we are indeed addressing our own needs above those of the animals we believe we are helping.

Rehabilitation of oiled birds: Key issues to success

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Since human society began to use petroleum in an industrial capacity, releases of these deleterious products into the environment have been reported. Large-scale impacts to wildlife have subsequently been seen, causing large-scale morbidity and mortality in affected animals both at an individual-, as well as a population-, level. Following such catastrophes, the general public have attempted to care for affected birds and mammals; however, only over the past four decades have large-scale wildlife responses been mounted by professional animal care organizations.

With the development of organized wildlife responses have come improvements to the knowledge and understanding of the effects of oil on wildlife, as well as methods to better care for affected animals. Advances in veterinary medicine and directed research in response technologies have been applied to the rehabilitation of wildlife in oil spills, decreasing secondary injuries and improving release rates. Additionally, the mounting of large-scale wildlife responses have also taught responders how to effectively manage the logistics of such events, including effective management structures and facility requirements.

Therefore, the purpose of this presentation is to review those aspects of large-scale oiled bird rehabilitation efforts that are most critical for effective and efficient responses.

Oiled wildlife response in a European context: why plan for it?

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p.m.

The tanker owners' commitment to clean seas and safe oil transport

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The world tanker fleet is quickly moving towards a total double hull fleet with an expected 85% of all tankers being double hull by 2010. While this will reduce the risk of oil entering the environment from accidents (collisions and groundings), the tanker industry continues to focus on further reducing the risk of accidents in terms of structural and maintenance improvements but in particular by eliminating illegal operational discharges of oil by the improvement of on board operational procedures and equipment.

INTERTANKO will present an update on the single-hull phase-out schedule for the world tanker fleet together with an overview of the possible consequences. Further attention is given to the new environmental challenges for the industry necessitating a rapid growth in research and development by tanker owning companies striving for further improvements in ship efficiency. While touching upon construction and maintenance matters, particular attention is given to ship operation.

In this latter case and while limiting discussion to the prevention of pollution to the sea, INTERTANKO's paper will summarise the operational and political issues associated with the reduction and eventual elimination of discharge to the sea from tankers. By improving crew awareness, ship operation, equipment design and shore based support at ports and terminals, a zero discharge policy is seen as an achievable objective for the tanker sector.

Examples will be provided on how the industry is working to meet the zero discharge target from the use of pilots in certain waterways to the increasing attention being given to improving environmental awareness within by tanker crew. At the same time, unilateral and international legislative advancements mean that the industry is also having to engage with regulators by way of sharing experience and expertise in an effort to ensure that regulations are effective in meeting their objective.

Oiled Wildlife Response Service from the Oil Industry

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OSRL/EARL now has an international oiled wildlife preparedness and response service through a contract with the Sea Alarm Foundation. The new service will enable the skills and experience of OSRL/EARL to be combined with those of relevant wildlife response groups to assist and protect wildlife threatened by oil pollution. The key services that are available under this new mission include:

Response Services

- Training and coordination of a dedicated international wildlife response team available on call 24/7
- Provision of expert knowledge to co-ordinate and advise on a response
- Stockpile of wildlife response equipment that can be mobilised worldwide
- Updating of country wildlife response profiles for a spill location

Preparedness Activities

- Development of country wildlife response profiles worldwide
- Development of wildlife response training courses for the oil industry
- Inclusion of the service into Participants and Associates Oil Spill Contingency Plans
- Wildlife Response Contingency Plan writing service

The main aim of this joint programme is to ensure that the response to future oiled wildlife incidents is faster and more effective, with better documentation of results and lessons learned. This presentation will detail progress to date and how the service will benefit oiled wildlife response globally.

Preventing the oiling of wildlife – EMSA’s Role in Pollution Prevention, Preparedness and Response in Europe

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The European Maritime Safety Agency (EMSA) was created following a number of major oil pollution accidents in EU waters, in particular the *Erika* incident. EMSA’s main goals are to reduce the risks of: maritime accidents, loss of life at sea, maritime security and pollution from ships with its associated environmental damage. These tasks are carried out against the background of increasing numbers of tankers carrying larger volumes of oil in European waters, including sensitive areas such as the Mediterranean and Baltic Seas.

EMSA is responsible for providing technical and scientific advice to the European Commission and Member States in the field of maritime safety and prevention of pollution by ships. EMSA monitors the ways in which EU Legislation is being implemented and evaluates the effectiveness of existing measures, in part by providing information and data on maritime safety and ship pollution. Data processing and analysis are undertaken in a number of areas, for example Port State Control and single hulled oil tankers.

Another key activity for EMSA is the SafeSeaNet project, in line with Directive 2002/59/EC. Through close co-operation between Member States, the Commission and EMSA, a pan-European network has been developed for exchange of data on ships at sea, including traffic monitoring, dangerous cargo details and accident information. This system is aimed at enhancing the safety of maritime traffic, improving authorities’ response time to deal with accidents and reducing the risk of pollution.

EMSA is also taking an active role in environmental protection from ship wastes and cargo residues. Ships can either discharge these wastes into port reception facilities or dump them illegally at sea, and in practice do both. Therefore by working with ports to improve access to appropriate and reasonably priced port reception facilities, the aim is to encourage ships to use these facilities rather than polluting the marine environment by discharging waste directly into the sea.

With regard to combating pollution incidents, EMSA’s mandate was amended in 2004 following the *Prestige* incident to include an operational task in pollution response, specifically to:

- Provide ‘technical and scientific assistance in the field of ship-sourced pollution’ and
- Support, on request, with additional means in a cost efficient way the pollution response mechanisms of Member States.

To this effect, EMSA manages a network of standby oil recovery vessels, equipped with state of the art equipment for mechanical recovery of oil at sea. The vessels also have very large storage capacities and are fitted with slick detection systems to ensure maximum recovery of oil from the sea surface and minimise the environmental damage caused by oil pollution. This network of vessels is ready to be mobilised, upon request, when the scale of a serious pollution incident exceeds the capability of the affected country.

Finally, EMSA is responsible for CleanSeaNet – a satellite based monitoring system for marine oil spill detection and surveillance. This service provides a range of information to users including oil spill alerts, rapid delivery of available satellite images and oil slick position, providing a means to monitor illegal discharges and accidental spills in European waters. In the medium to longer term, such a system should make it easier to identify and catch those responsible for polluting European waters. In parallel to these

activities, EMSA can (upon request) provide technical and scientific expertise to support incident response operations in European countries.

The role of a P&I Club in the aftermath of an oil spill incident

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The main aim of this paper will be to give the conference delegates a better idea of what P&I Clubs are, how they fit into the scheme of oil spill prevention and response, and the common aim of avoiding pollution incidents and minimising the effects.

Protection and Indemnity ("P&I") Clubs are collections of ship-owning and operating members who mutually share certain third party liability risks associated with their business. Non-profit making, they are controlled by a committee selected from their membership who appoint a management company (in this case A. Bilbrough & Co. Ltd) to manage the collection of premiums (Calls) and the settlement of claims. Calls are made on an annual basis according to the overall exposure of the club to claims, individual member records and requirements for free reserves. P&I insurance developed in the 19th century due to changes in the law that made it more difficult for ship-owners to contract out of third party liability to cargo owners but has expanded to cover a range of third party liability including cargo, fixed and floating objects personal injury and pollution. In addition the Clubs provide defence cover to assist members in contractual disputes.

Although the Clubs compete with each other for membership, they have found it beneficial to pool the larger risks and so have formed the International Group of P&I Clubs comprising thirteen Clubs which together account for over 90% of the world's bluewater tonnage. Individual Clubs retain liability for up to USD7million for any one claim and pool larger claims within the group up to USD50 million. For larger claims reinsurance is purchased collectively by the Group which enables them to obtain the maximum reinsurance cover that the market can sustain and offer their membership cover up to a maximum of USD3.05 billion.

The P&I Clubs provide insurance up to a limit of USD 1 Billion for oil pollution and in the case of oil spills of persistent oil from laden tankers they provide cover in accordance with the International Convention on Civil Liability for Oil Pollution Damage (CLC) which is a convention governing the liability of ship-owners for oil pollution damage whereby in exchange for accepting strict liability and compulsory insurance, ship-owners are entitled to limit their liability depending on the cargo carrying capacity of the vessels. This convention operates in tandem with the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (Fund Convention) which provides compensation when the compensation under CLC is inadequate and is financed by contributions levied on parties in member states that receive crude oil and heavy fuel oil. Recently some new initiatives have been born to increase the contributions of Ship-owners to oil pollution liabilities in the form of voluntary agreements such as the Small Tanker Oil Pollution Indemnification Agreement (STOPIA) and Tanker Oil Pollution Indemnification Agreement (TOPIA 2006).

P&I Clubs provide a unique claims handling service to their members which is tailored to ensure both the protection of the individual members to ensure the fair and proper settlement of any claims and the handling of incidents as efficiently as possible. Each Club has a rule book which sets out the breadth of cover and makes up the insurance contract with the member. Additionally, each P&I Club executes a loss prevention programme centred on ship inspections and advice to members on casualty and claims avoidance. The International Group represents the interests of the P&I insurers and their members at an international level.

The role of the P&I Club in the aftermath of an oil spill incident will be illustrated with the example of the recent oil spill in Egypt.

Measuring impacts on seabird populations

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The first question ‘seabird experts’ are asked in the early hours of an oil spill is ‘how bad could this be?’. Providing a meaningful answer can help guide the spill response, as well as being of interest to conservationists, but requires prior knowledge of what species and numbers are likely to be in the vicinity of the oil at that particular time of year. Then, as the incident progresses, government agencies, spill responders and the media all want casualty lists, for different reasons. Finally, once the incident is over, the question becomes ‘what does this mean for the populations of the different species killed?’ These are the three stages of assessing the impact of an oil spill on seabird populations: preparedness, an efficient response, and then evaluation and follow-up.

Most seabird species are migratory, or at least disperse well away from colonies during the major part of the year they are not breeding. They may use regular migration routes, staging areas, and wintering grounds, and these may differ between different age classes, and even between the sexes. Having regional data on their seasonal distribution and numbers incorporated into atlases or sensitivity maps is of immense value in the event of a spill. This may be a relatively easy desk exercise collating existing information for coastal areas, but will require dedicated surveys for offshore areas. Such data and maps exist for some European sea areas, but large gaps in knowledge (or its availability to responders) remain.

Assessing the actual mortality requires planned and directed surveys of the affected coastline (beached bird surveys) to collect, count and identify oiled birds, whether dead or alive. This may require considerable manpower and logistics, and should be conducted in close co-operation with the authorities managing the overall incident response, as well as those involved in the care and rehabilitation of live birds. Not all oiled birds will wash ashore and be found, and it is advisable to conduct an experiment with marked or simulated carcasses to assess the proportion lost at sea or otherwise never found.

Major oil spills tend to occur in winter, yet for many seabirds the best data on population sizes and demography come from breeding areas, which might be thousands of kilometres from an incident. Most widespread species of the North Atlantic show geographic variation in body size and or/plumage, and careful examination and measurements can help identify their likely breeding origin. Seabirds also have delayed maturity, with younger age classes having lower natural survival rates than breeding adults, and an oil spill that mainly kills adults is far more likely to have a real and detectable impact on the total population. It is therefore important to establish the age structure of the mortality for each species, which normally involves internal post-mortems, especially for heavily oiled corpses. This vital aspect of impact assessment requires existing or temporary laboratory facilities, and expertise that may not be available locally. A report on these examinations and corpses totals should then be made available to those in other countries where seabird breeding populations may have been affected. Despite all this, demonstrating an impact will require up to date information on population sizes, and for some species it may be more appropriate to look for any impact the following winter in the area of the spill.

Such an impact assessment should be generic to any marine oil spill, and an efficient, professional, and scientifically valid response is best carried out in the context of an existing wildlife response plan, and with the sanction and co-operation of government and industry responding authorities.

Biomonitoring human populations after oil spills: the Prestige experience

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Oil spills constitute one of the greatest ecological catastrophes. Since 1960 a total of 410 oil tankers sunk contaminating the oceans all around the world with 377,765 tons of oil. The intense maritime traffic of dangerous merchandises makes Galician coast (NW Spain) a critical point for these accidents. In November 2002 *Prestige* oil tanker sunk 130 miles away from Galician coast. The tanker spilled around 66,000 tons of heavy oil No. 6, classified as possible human carcinogen by the International Agency for Research on Cancer (group 2B), contaminating 900 km of Spanish and French coast favoured by the strong swell and tides.

Prestige accident caused a general commotion and a great number of volunteers came from everywhere in Spain and even from Europe to collaborate in the cleaning and recovery labours. This fact positioned these people as integrants of an exposed population probably affected by the oil. Although some previous works analysed the effects of oil spills on human health, most were focused on acute and/or psychological endpoints. Taking into account the toxicological characteristics of oil components, many of them mutagenic and/or carcinogenic, we developed a study to evaluate the genotoxicity associated to the exposure to *Prestige* oil.

In the first part of this study we included volunteers engaged in the cleaning and autopsies of oil-contaminated birds. Significantly higher DNA damage (evaluated by means of comet assay) was observed in the exposed individuals with regard to controls. On the other hand, slightly higher non-significant MN frequencies were obtained in the exposed group. These results indicate that handling of *Prestige* oil-contaminated birds induced DNA damage that was mostly repaired and did not become fixed as structural chromosomal alterations. Furthermore, wearing mask protected from the induction of genotoxic damage.

The second part of the study comprised individuals who participated in the cleaning of beaches and rocks, classified in three groups according to the different tasks developed: volunteers (V) who collected oil manually in beaches for only five consecutive days, and hired workers engaged also in the manual cleaning of beaches (MW), and in the cleaning of rocks using high-pressure machines (HPW). Increased DNA damage was obtained in all exposed groups; V was the most affected according to their higher levels of exposure. This could be related to a certain adaptive response in hired workers, whose exposure time was much longer. Cytogenetic tests results showed significant increases only in hired workers, suggesting that a large exposure is needed for the genotoxic damage to be fixed. The use of protective clothes or mask determined only slight decreases in the evaluated damage in some individuals. This observation could be due to the fact that the characteristics of the protective devices used were not appropriate for this kind of exposure, or that individuals did not correctly use them.

On the basis of the results obtained in this work, the importance of evaluating the chronic effects related to oil exposure after a spillage, especially the genotoxic effects, must be emphasized in order to determine the risk of the exposed subjects and the efficiency of the protective devices employed.

RIOS – A Specific Support Action for Reducing the Impact of Oil Spills

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In April 2007 the European project **RIOS - Reducing the Impact of Oil Spill** was started. RIOS project is focused on minimising the negative impacts of oil spills on the wildlife. The project is a specific support action funded by the European Commission.

The main **objective** of the **RIOS**-project is to develop an **action plan for the future research** in the area of rehabilitation of oiled animals and to **stimulate the contacts** and **future cooperation** between scientists and other stakeholders in this area.

The **activities** of the **RIOS**-project includes the following actions:

1. Creation of an expert group;
2. Study (collection of information) and analysis of the present state-of-the-art;
3. Mapping exercise (to identify European expertise and stakeholders);
4. Development of research strategy – action plan;
5. Organisation of an International Workshop that will take place in Algarve (Portugal) on 17-19 April 2008;
6. Dissemination of information (to stakeholders);

The projects' consortium is composed of **Nordeconsult** (Sweden), **Sea Alarm Foundation** (Belgium) and **Zoomarine** (Portugal). The consortium will work in cooperation with a group of experts to identify the state-of-the-art and the research priorities. A report will be produced, which will be used as a background document for discussion at the projects' **workshop**.

The experts group is composed by experts with different scientific background:

- Mike Ziccardi (US) – Oiled wildlife rehab (international perspectives);
- Thierry Jauniaux (B) – Oiled wildlife rehab (European perspectives);
- Mark Grantham (UK) – Post release survival;
- Kees Camphuysen (NL) – Vulnerability mapping and impact assessment.

An **international workshop** will be organised in Algarve (Portugal) on **17-19 April 2008** with the objective of gathering stakeholders to discuss research needs regarding marine oil pollution. The output from the workshop will be a well-defined action plan for research needs. The action plan will be reported to the **European Commission**, as an integrated part of the **RIOS project**.

The **expected impacts** of the **RIOS**-project are:

- Increased cooperation between stakeholders from different communities;
- Input to the European Commission for joint research priorities to the 7th and 8th

Framework Programme;

- Avoiding duplicate research by stimulating cooperation;
- Establishing research consortia for the development of research projects;
- Development of an action plan for research.

The **RIOS**-project is a unique opportunity to make a strong **impact** and **influence** the identification of **research priorities** and **funding possibilities** of the future calls on marine oil spills of the **European Research Programmes**. It is, therefore, important that all the stakeholders participate and contribute to the development of an action plan purposed by RIOS-project.

On the RIOS-project website (www.nordeconsult.com/RIOS/) it is possible to **download the questionnaire** on **future research needs** and **project ideas**. All **stakeholders** are welcome to fill in this

questionnaire **expressing their views** of the current state-of-the-art and future needs. We will take all relevant comments into consideration when developing the **action plan on the marine oil spills**.

The MSC Napoli incident (UK 2007) – An example of an integrated response

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In emergency situations efficient co-operation of all those involved is critical to a successful outcome. During an oil spill there are often many organisations involved in a range of disciplines dealing with the many facets of the emergency. Each area of operation needs to work as a coherent unit to achieve its aim. Equally, each of these units must work with the whole to arrive at a successful conclusion. Co-operation, communication, understanding, discipline and practice are all essential ingredients that make the outcome a success.

The range of responders to oil pollution incidents is vast and includes Governments - both national and local, their agents and contractors, NGOs, landowners and volunteers. The key is bringing these all together to undertake their role in co-operation and harmony with each of the other operators. This is undertaken through effective communication at all stages and with all players.

To be sure that all agencies involved in the response are communicating the key is getting them all together and agreeing a plan. In the UK the Government delegates this to the Maritime and Coastguard Agency. Various incidents around our small island have not only sown the seed for such a plan but they have also provided opportunities to refine it and review it regularly.

The MCA has, in partnership with all interested parties, drawn up the UK's National Contingency Plan for Marine Pollution from Shipping and Offshore Installations (NCP). This document is reviewed regularly and has only recently (2006) gone through a major review incorporating lessons learned from both major and minor incidents.

The NCP identifies three separate but closely linked units within an overall response; salvage, operations at sea (and/or harbours and ports) and shoreline activities. The Environment Group (EG) advises each of these on environmental issues and public health. It feeds information up to the operational units and responds to requests and receives information from those units. It is within the Environment Group that responsibility for a wildlife response lays.

The EG is therefore key to the RSPCA activities in oiled wildlife response. It provides the Society and many other environmental and wildlife organisations with a range of information including detailed information about animal movements, oil movements, health aspects of the spill and where necessary access to controlled areas.

The membership of the EG is such that apart from the core members a range of organisations can be drafted into the group to offer advice specific to the spill. Included are the major welfare organisations as well as bird organisations, mammal groups and fisheries groups.

The major advantages of this type of set-up is a balanced approach to situations as they arise, an ability to provide the primary operators with quality, up-to-date information upon which to base strategies and an integrated approach.

This presentation will focus on the interactions of these groups from a rehabilitator's viewpoint and within the context of the recent spill from the container ship MSC *Napoli* that was run aground in the south west of England in January 2007. Comparative data from post mortem and biometric studies will be presented. These will illustrate how the results can feedback to the rehabilitation effort, and also influence future work.

Increasing threats in the Baltic region

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The Baltic Sea is an important marine area for wintering seabirds. About nine million individuals of about 30 species winters in the Baltic Sea. The distribution is very patchy. More than 90 % of the birds winters within an area of less than 5 % of the total Baltic Sea area. The birds are mainly found on offshore banks, in lagoons and along the coast.

Shipping is intense and increase in the Baltic Sea. At every moment about 2000 ships are on the move in the Baltic Sea. Oil transports will also increase dramatically in coming years. A shipping route with very frequent traffic goes from southwest Baltic Sea via Öland, Hoburgs bank and east of Gotland to the Gulf of Finland. In year 2000 about 58 500 ships passed east of Öland along this route. Hundreds of oils spills are registered along the route each year.

Surveys in the 1990s showed that more than 25 % of the European Long-tailed Duck *Clangula hyemalis* population wintered within the Natura 2000 site Hoburgs bank and east of Gotland. Our weekly surveys of oiled birds at southern Gotland and analyses of birds that had drown in fish nets showed that tens of thousands of Long-tailed Ducks were injured by oil each winter in central Baltic Sea. Of 998 birds that drowned in fish nets at Hoburgs bank 11.8 % were found to have oil in the plumage. There was no clear relationship between the number of oiled birds observed and the number of registered oil spills in different years.

Many sea ducks have a life history in which variable or low productivity is compensated for by relatively high adult survival. This makes sea duck populations very susceptible to extra adult mortality caused by oil spills. It is not acceptable that a very intense shipping route pass through the Natura 2000 site Hoburgs bank in central Baltic Sea. Ship routes have to be changed by IMO. European countries should in concert within IMO to better protect European marine protected areas.

Wildlife response in the Mediterranean

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Black Sea and Caspian Sea: Planning and capacity building

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The Caspian Sea and Black Sea is emerging as a 'new' province for the oil majors in the modern era. There is increasing oil exploration, production and transportation by pipeline and vessels. Whilst there are significant efforts to mitigate oil spills risk through prevention, it is widely acknowledged that development of oil spill preparedness and response in these regions is needed. Furthermore, there is recognition amongst the leading operators that measures to protect oiled wildlife or to consider a wildlife response, should be integrated into overall oil spill contingency planning. In some cases this means the operators are more comprehensive in their oil spill planning than governmental frameworks require. This has led to wildlife plans being produced without the benefit of a national policy. In these cases, references such as the Volume 13 of the IPIECA Report Series can be drawn upon to legitimise industry approach and provide assurance to the relevant government Ministries or Agencies that international guidelines are being followed.

The credibility and functionality of wildlife plans is greatly enhanced by the involvement of respected and experienced wildlife response organizations. Existing oil companies' wildlife plan's in these regions are structured to integrate the capabilities of such organizations into the overall response effort – with the company providing facilities, local knowledge, logistical support and safety management. The direction and oversight of any wildlife response team will invariably be undertaken by international expertise, through liaison and integration with the oil companies overall response team. The oil company operators can also provide links to, and mobilization of, local resources to support a wildlife response, either through direct contacts with NGO networks or through the media.

Once wildlife planning documentation is finalized, the key to implementation is training and exercising. The approach adopted has not been to train a large cadre of volunteers, as this is impractical. Rather, key personnel within targeted organizations have been approached to participate in training courses. The personnel attending these courses are expected to provide the pool from which a wildlife response team's supervisory staff may be drawn in the event of an incident. They would additionally be expected to be the primary contact points for requesting larger number of volunteer personnel. These volunteers would be given structured induction training (1-2 hours) before taking up supervised roles in the response team.

Experiences in these regions have reinforced the message that effective oiled wildlife preparedness requires structured planning based on cooperation and partnership between the operator, international wildlife experts and local organizations (including endorsement from government).

Perspectives on European cooperation and new tools available

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Maritime traffic, including oil transport, is abundant in the coastal waters of Europe. If the Baltic Sea, North Sea, the wider North East Atlantic, the Mediterranean and Black Seas are considered, about 30 European maritime states are potentially at risk of oil spill pollution, and risks are significantly increasing in some areas due to traffic intensifying.

Most of the European states have an oil spill response plan in place. Only a few of these plans however have a dedicated section on how to deal with oiled wildlife in the aftermath of an oil spill incident. It is no

surprise that the few available oiled wildlife response plans have been developed in countries in which one or more significant oiled wildlife incidents have taken place.

A country's capability to deal effectively with an oiled wildlife incident is dependent on many factors. Key to any emergency response is that leading organisations and individuals are capable of working together in a well organised and cost efficient way, following an agreed strategy. This requires the development, and exercising, of excellent personal working relationships as part of the implementation of an agreed plan.

As part of their strategy development, authorities and other key stakeholders should consider what to do in a realistic worst case scenario in which the in-country response capacity is likely to become overwhelmed. In that case, they may want to consider the option to call additional resources from other European countries. In case of an oiled wildlife incident, this may include a request for expertise and/or mobile equipment. In such an international mobilisation it is important that the additional resources can be quickly integrated into the national system and become effective.

Over the last few years, many initiatives have been taken in order to improve the cooperation between wildlife responders in Europe, including wildlife rehabilitators, scientists and government officials charged with the oiled wildlife response and planning. Wildlife rehabilitators and expert organisations have organised themselves and have put informal cooperative systems in place that would allow fast mobilisation of international expertise in case of an emergency call out. Also the oil industry has committed itself to international capacity development by means of an cooperative programme that was agreed between OSRL/EARL and Sea Alarm. In the framework of this programme, an extensive unit of mobile equipment has been set up, available for international response assistance all over the world. An international database on oiled wildlife response capacity is being developed and a training programme for professional oiled wildlife responders has started as part of the same programme.

The effectiveness of these non-governmental initiatives is also demonstrated by the publication of an increasing number of documents that describe standards of good practice that have been agreed internationally. The IPIECA Guide to Oiled Wildlife Response Planning, published in 2004 is a good example. But recently similar tools have been developed as part of three European projects that were commissioned by the European Commission and in which official delegations from most European coastal states had a strong input. The *Handbook on Good Practice for the Rehabilitation of Oiled Birds in the aftermath of an Oil Spill Incident*, the *Handbook on Impact Assessment*, the website www.oiledwildlife.eu and a proposed *European Oiled Wildlife Response Plan* will be launched at the Conference. All are products that have been produced as part of an international governmental (EU) co-funding programme. They herald a new phase in which governments are taking the issue more seriously and will get involved in new activities by which individual countries, and Europe as a whole, will get better prepared to future oiled wildlife incidents.

The necessity for a structural offer on training on the rehabilitation of oiled birds in Europe

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Europe has a long history of local rehab centres with local knowledge, build on chronic oiled birds. Some rehab centres were more organised and offered training for their own people (e.g. France, UK).

Recently, more cooperation on national level and contact with international organisations generated by groups like Sea-Alarm, IBRRC, IFAW... resulted in:

- Better results in the rehabilitation of oiled birds
- Closer contact between European coastal rehabilitation centres
- A big demand for training on the 'best practices' on oiled birds

Currently, only three facilities are known to offer international training for Europeans:

- PRO-BIRDS Belgium in the rehab centre of Oostende: 6 to 9 people per year
- The RSPCA in the UK: on demand
- The IBRRC in the USA: on irregular base

And request for training come from Ireland, Scandinavian and Baltic countries, individual rehab centres... International training is normally not the prior activity of these rehab centres, therefore they have no specific budgets or schedules to offer training on a long term.

It is clear that there is a great need to find the means to set up a structural framework where in these trainings can be organised in Europe.

Since more and more countries are willing and starting to write an oiled birds contingency plan, it might be an idea to include sustainable budgets for training.

Voluntary oil spill response: an international model for coordinated volunteer involvement

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This presentation will briefly introduce the concept of voluntary oil spill response and especially oiled wildlife rehabilitation. The presentation will introduce a model created and developed by WWF Finland, WWF Norway and Estonian Fund for Nature (ELF). Presenters wish to provide basis for discussions and new ideas in enforcing such coordinated volunteer involvement in other countries as well.

WWF and ELF are very concerned about the present situation of the Baltic Sea, which is one of the most polluted seas in the world. The shipping all around the Baltic, especially in the Gulf of Finland is increasing rapidly and it is only a matter of time before a large scale oil spill will happen. At the same time, many countries on the shore of the Baltic Sea, including Estonia, are not prepared to fight a large oil spill.

WWF Finland established voluntary oil spill response brigades in spring 2003. In August 2005 ELF and WWF jointly started an EU funded project on preparing for oil spills on both coasts of the Gulf of Finland. Voluntary brigades were founded in Estonia during the mystery oil spill in January 2006. In November 2005 WWF Norway started project *Clean Coast* and founded voluntary brigades. This presentation will introduce the aims and actions of these projects.

All operators have created sound networks with key authorities. An intensive training module is enforced and supportive training material has been produced in all three countries. WWF and ELF work closely with Sea Alarm's oiled wildlife response network and aims to strengthen international cooperation and exchange of both experience and expertise.

The presentation will briefly introduce case examples from each of the three countries where volunteers have been recruit for response operations.

Marine mammal rehabilitation after oil spills; applying experience from the field

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Different seal species exist in European coastal waters, each with its own particular range of distribution. Because they are surface breathing and spend a lot of time in relatively shallow nearshore waters including the intertidal, seals are particularly sensitive to oiling and the oiling of their habitat. The oiling of marine mammals is frequently reported as a result of different forms of pollution. An oil spill usually affects up to several dozens of individuals. Nevertheless, a single oil spill near to a densely populated haul out area of pinnipeds may threaten hundreds, or, in some areas in the world, even thousands of animals. An oil spill requires a professional wildlife response. It needs to be well integrated into the overall spill response.

The Seal Rehabilitation and Research Centre Pieterburen (SRRC) has a long history of international capacity building and incident response experience. The SRRC rehabilitated marine mammals during several oil spills. This presentation will address some of the key issues when confronted with a major oil spill affecting marine mammals. It deals with the subject from a practical point of view. Equipment and skills used successfully in several past responses are illustrated. Application of these resulted in the fact that many marine mammals could be helped in an effective way. Present standby response equipment is illustrated and explained as well as its possible use in the future.

Oiled wildlife response as part of an environmental protection policy

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p.m.

Oiled wildlife response planning in Germany

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p.m.

The proces of integrated planning with multistakeholder involvement

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If, due to a disaster with oil on the North Sea, seabirds get oiled and come ashore, bird rehabilitation centres along the Dutch coast will try to clean up the birds that have a good change to recover. If live birds arrive ashore in unusual large quantities, however, these centres can become overwhelmed. Sea Alarm, who represents them, asked in 2005 the Ministry of Water Management and Transport, responsible for the water quality, to assist.

The Minister accepted the challenge and he ordered a consultative process involving all stakeholders with the aim to develop an acceptable oiled seabird response plan. The strategy which all parties have adopted is to open a Temporary Wildlife Rehabilitation Centre for Birds in the most affected region, where volunteers can attempt to clean and rehabilitate the birds. In order to be successful in such an approach, cooperation between different government authorities, private companies, voluntary groups and scientists need to be agreed and established. It has been quite a process to develop this plan, but is now close to signing.

Posters

Bird Intervention Plan

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The accident with the *Tricolor* in January 2003, with its 9.117 beached birds -of which more than 50% were alive at the time of beaching- and max. 170 ton of spilled oil, led to the general awareness that Belgium needs an intervention plan for oiled birds. The official order to start the process of drawing up an intervention plan was given in autumn 2003 by the Minister of Environment.

The intervention plan not only includes measures for handling oiled birds, but also useful background information such as address lists, logistics and available material and filing cards on the plan's co-ordination and activation, costs and finances, animal treatment and waste management.

A general aim was to end up with a practical plan, and not a voluminous book.

The intervention plan has been signed by the governor of the province of West-Flanders, and the regional and federal Minister for Environment on 14 July 2005. This signing was a crucial step in endorsing the plan at a political level.

LPO mobile care units for birds in distress

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Since the experiences with oiled bird rescue and rehabilitation in the aftermath of the *Erika* spill in 1999, the Ligue pour la Protection des Oiseaux (LPO) has been elaborating on the concept of mobile first aid centres for birds in distress that could be sent to, and operate near to an incident in areas where permanent infrastructure is lacking. At present the Ligue has to its disposal two units which are basically articulated trucks that can be converted into a forward holding centre (for the triage, care and holding of birds). Both trucks are equipped with generators and water tanks which allow them to operate in remote areas away from electricity and fresh water supply. One system has been developed by LPO; it was developed and donated to LPO by the Belgian organisation Wildpeace.

Fairy® and Dawn®: Partners in saving oiled wildlife over twenty years

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From the shores of Alaska to the Galapagos Islands, Fairy®, and the international equivalents - Dawn®, Dreft®, Yes®, Magistral®, Cierito® - are usually THE products of choice for gentle cleaning of oiled birds by wildlife rescuers, worldwide. In addition to aiding emergency rescue teams by donating free product and funds during major oil spills, these brands have also established themselves as trusted partners with wildlife rescue organisations around the globe. One outcome of the partnership between Dawn® and Tri-State Bird Rescue and Research (TSBRR) has been the creation of the Canadian Oiled Wildlife Academy (COWRA), in 2005. The 3-year mandate of COWRA is to educate and prepare wildlife rescue teams in the event of oil spills. Here, we highlight some current global partnerships, report on the first two years of COWRA, and indicate future opportunities to continue making a meaningful contribution to wildlife rescue programs.

RIOS (Reducing the Impact of Oil Spills)

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See **Cláudia Jesus-Rydin's** abstract, page 23