

## **Beached Bird Surveys and the assessment of total mortality in case of oil incidents**

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I would like to tackle two rather different problems in this contribution. One is the problem in the interpretation of data collected during routine Beached Bird Surveys or in an oil incident when assessing total mortality. The other is perhaps a specific Dutch problem and this is the trouble one encounters with the registration of an oil incident or mass stranding: the lack of co-operation between authorities and research groups.

Particularly in case of an oil incident, an assessment of total mortality has to be made. To satisfy the press, such an assessment has to be made when it is quite impossible: at the very beginning of a stranding. We should prefer to work with indices of relative abundance when comparing strandings in one year with another, or when comparing mortality in one incident with another, rather than with 'absolute' numbers. Afterwards, however, there may be a more scientific need for an estimate of total mortality, even if we can only come up with a sensible guess. If such an estimate is required, we should take into account: time span of stranding, area of stranding, the percentage of casualties captured alive, species involved (pelagic seabirds or coastal species) and the number found stranded or caught alive. Drift experiments with corpses set overboard at sea have had very different results. Examples of drift experiments will be given.

There seems to be an 'internationally accepted standard' to multiply the number of birds found dead with 10 to arrive at an estimate of total mortality. This factor will be discussed and rejected. It will be proposed to prepare a manual in which one can find what parameters should be taken into account (what data should be collected) when assessing total mortality to arrive at a standard method and to avoid silly overestimates.

A very different problem is the registration of mass strandings in de the Netherlands. Many different bodies are involved when an oil incident is considered large enough to activate emergency plans as outlined in the paper of Mr. Zandstra. Routine Beached Bird Surveys are seriously disrupted when an oil incident 'requires' action of (local) authorities. The risk of a total loss of data is great. Different methods make comparisons with similar incidents often impossible. The lack of experience of these authorities to cope with oiled seabirds, and the inevitable panic or stress during press contacts and the co-ordination of uncommon activities makes co-operation between these bodies and BBS organizers very difficult. Examples are given, together with suggestions to improve the situation.

*Samenvatting 'Olieslachtoffer-tellingen en het vaststellen van totale sterfte bij olie-incidenten'*

*Vooral bij grote olie-incidenten bestaat de behoefte om te schatten hoe groot de slachting onder vogels precies is geweest. Bij een schatting dient rekening te worden gehouden met factoren als: tijdspanne van de stranding, ruimtelijke spreiding, aandeel nog levende olieslachtoffers, betrokken soorten (pelagische soorten, kustgebonden soorten) en de daadwerkelijk vastgestelde aantallen. De 'internationaal geaccepteerde standaard', om gestrande aantallen met 10 te vermenigvuldigen om tot een schatting van totale sterfte te komen, is onbruikbaar. Voorgesteld wordt om te komen tot een handleiding waarin onderzoekers op uniforme wijze tot een schatting kunnen komen waardoor zinloze overschattingen tot het verleden gaan behoren. Een heel ander probleem is de tot dusverre gebrekkige samenwerking in geval van calamiteiten. Routinematige strandtellingen en daarmee het onderzoek naar olieslachtoffers, worden ernstig verstoord bij een olie-incident, wanneer (locale) autoriteiten zich met de registratie gaan bemoeien. Het risico van een totaal verloren gaan van informatie is groot, terwijl verschillen in methode vergelijkingen met incidenten onmogelijk maken. Samenwerking komt veelal te laat tot stand: suggesties voor verbetering worden gegeven. ■*