MARINE MAMMAL RISK COMPARISON ^a	
Bycatch	Deaths Per Year
	000 000 500 000h
Global	360,000-500,000 ^b
U.S.	6,215-7,630°
Strandings	
Global	Unknown
U.S.	3,826 ^d
Commercial Whaling	None
"Scientific Research" Whaling (Japan, Iceland, Norway)	1,400°
Subsistence Hunting	92 ^f
Ship Strikes	7 ^g
Acoustic	Unknown
Pollution	Unknown
Entanglement (other than bycatch)	Unknown

^a All numbers are presumed deaths per year. In many cases (*e.g.*, strandings data), it is not known from the database how many fatalities actually occurred.

^b Source: Read, *et al.*, "Bycatches of Marine Mammals in U.S. Fisheries and a First Attempt to Estimate the magnitude of Global Marine Mammal By-Catch," submitted to World Wildlife Fund-US in 2005.

^c Ibid.

^d Source: NOAA Fisheries, at http://www.nmfs.noaa.gov/pr/health/faq.html.

^e Source: BBC news at http://news.bbc.co.uk/1/hi/sci/tech/3892909.stm.

^f Source: "Aboriginal Subsistence Whaling," IWC Report 54 (April 2002).

^g Source: "Reports of large whales killed by ship strike in 1999-2001," as recorded at National Progress Reports submitted to IWC Scientific Committee 54.

CRE REQUESTS COMPARATIVE RISK DATA FOR MARINE MAMMALS

The table set forth above presents the data CRE has found to date on the comparative risk of potential adverse anthropogenic effects on marine mammals. We request that anyone with data on this issue provide the data to CRE.

The US Marine Mammal Commission ("MMC") is reporting to Congress on the risk to marine mammals from anthropogenic sound. CRE believes that the MMC report should contain a comparative risk comparison showing on how acoustic effects risks compare to other risks.

Such a risk comparison would assist Congress and US regulatory agencies in setting priorities for risk regulation and mitigation.

A comparative risk assessment would also be consistent with the recommendations of the National Academy of Sciences' National Research Council.²

A comparative risk assessment would also be consistent with the US Office of Management and Budget's draft Risk Assessment Bulletin ("OMB Risk Assessment Guidelines").³

Consequently, CRE believes that the MMC report to Congress, and any other risk assessment on marine mammal risks, will be flawed and incomplete unless they contain a comparative risk assessment based on the best available data.

CRE also believes that comparative risk data are needed to ensure protection of marine mammals. We request that anyone with data on this issue provide the data to CRE.

The MMC Report is Subject to the OMB Risk Assessment Guidelines and other IQA Requirements Even Though the MMC is Violating the IQA by Not Publishing the Commission's Own IQA Guidelines.

The OMB Risk assessment guidelines are published pursuant to OMB's authority under the Information Quality Act ("IQA") and other "Good Government" laws and Executive

¹ See http://www.mmc.gov/.

² National Research Council, Improving Risk Communication, Washington, D.C.: National Academy Press, 1989, at 165-79 ("NRC Report").

³ The OMB risk assessment guidelines are available online at http://www.whitehouse.gov/omb/pubpress/2006/2006-01.pdf.

orders.⁴ The MMC Report is subject to all the IQA requirements even though the MMC is violating the MMC by not publishing its own IQA Guidelines.

The OMB Risk Assessment Guidelines emphasize the need for and importance of comparative risk assessment. This emphasis on comparative risk assessment follows the *NRC Report*:

The executive summary should also place the estimates of risk in context/perspective with other risks familiar to the target audience. Due care must be taken in making risk comparisons. Agencies might want to consult the risk communication literature when considering appropriate comparisons. Although the risk assessor has considerable latitude in making risk comparisons, the fundamental point is that risk should be placed in a context that is useful and relevant for the intended audience.

Each agency risk assessment shall: . . . Provide an executive summary including: information that places the risk in context/perspective with other risks familiar to the target audience.⁵

The OMB Risk Assessment Guidelines explain that actual comparative risk may often differ from public perception of the risks. One advantage of comparative risk assessment is that it helps regulatory agencies set priorities for regulation. In a world of limited resources, the agencies should concentrate on the more serious risks:

Priority Setting

Risk assessment is sometimes used as a tool to compare risks for priority-setting purposes. For example, in 1975 the Department of Transportation prepared a comparative assessment of traffic safety hazards related to highway and vehicle design as well as driver behavior. A wide range of countermeasures were compared to determine which measures would be most effective in saving lives and reducing injuries. Similarly, risk assessment models relating to food safety and agricultural health concerns may be used to rank relative risks from different hazards, diseases, or pests. In 1987 and again in 1990, the Environmental Protection Agency (EPA) prepared a comparative assessment of environmental hazards – both risks to human health and the environment – to inform the Agency's priority setting. This work demonstrated that the environmental risks of greatest concern to the public often were not ranked as the greatest

⁴ OMB Risk Assessment Guidelines, page 7.

⁵ OMB Risk Assessment Guidelines, pages 15, 24, citing NRC Report.

The IWC Has Not Provided Useful Comparative Risk Assessment Data

The International Whaling Commission's Scientific Committee has a Sub-Committee on Estimation of Bycatch and Other Human-Induced Mortality ("IWC Subcommittee"). CRE has not found useful risk data in the IWC's Subcommittee reports.

The most ambitious risk data provided by the IWC Subcommittee are derived from an independent study commissioned by the World Wildlife Fund-US. As explained by the IWC Subcommittee, "the authors [of the WWF Report] used existing bycatch data from published marine mammal stock assessments to calculate total cetacean and pinniped bycatches for US gillnet, trawl and other fisheries....US bycatch figures were used to generate very rough approximations of possible global marine mammal bycatch."

The WWF Report provides startling estimates on annual marine mammal bycatch deaths. The IWC Subcommittee expressed reservations about the data, but concluded that the WWF Report "figures provide an initial idea of the likely scale of marine mammal bycatch globally, which if it is measured in the hundreds of thousands is likely to be impacting populations."

CRE Requests Comparative Risk Data

For the reasons discussed above, we believe that a discussion of comparative risk data is required for the MMC report and for the protection of marine mammals. Set forth below are the comparative risk data that CRE has been able to identify so far. We have so far identified seven categories of anthropogenic risks to marine mammals. These seven risk categories are set forth in the following table with the annual adverse effects data for each risk that we have been able to identify so far. We have provided conflicting annual risk data when there are conflicting data. We also identify the sources for the data.

We do not claim that these data are comprehensive, accurate and reliable. We request that anyone with knowledge of other data, and that anyone with concerns about the quality of the data set forth below, contact CRE. We will post unedited any contacts we receive. We will also send them to the MMC.

⁶ OMB Risk Assessment Guidelines, page 4 (footnote omitted).

⁷ Annex J, Report of the Sub-committee on Estimation of Bycatch and Other Human-Induced Mortality, page 2.

⁸ *Id*.

Please send comments and additional data to slaughter@mbsdc.com.