ACCOBAMS GUIDELINES

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Definition of terms

- "Release": deliver from confinement, restraint or suffering.
- "Agreement area": Area covered by the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area.
- "Habitat": any area in the range of cetaceans where they are temporarily or permanently resident, in particular, feeding areas, calving or breeding grounds, and migration routes.
- "Acclimation": the process of becoming accustomed or adapting to a new environment or situation.
- "Native population": population originating in the place or region in question.
- "Subspecies": taxonomic subdivision of a species, consisting of an interbreeding population of individual animals.
- "Conspecifics": individuals of or belonging to the same species

1. Aims and objectives of release

1.1. Aims

Recalling ACCOBAMS Article II, which prohibits the deliberate taking of cetaceans from the wild, these guidelines aim to ensure that special consideration is given to proposals for the release into the wild of captive cetaceans that originate from, or are a result of breeding between cetaceans originating from, the Agreement area. Within this context, the release should be guided by the principles of preservation and/or conservation of the species and/or population concerned and aimed at improving the health and welfare of the individual animal(s) proposed for release.

1.2. Objectives

The objectives of the release may include: to enhance the long-term health and survival of the individual(s) released; to enhance the long-term survival of the species or population; to maintain and/or restore natural biodiversity; to promote conservation awareness; to rescue individuals held in poor conditions; or a combination of these.

2. Planning for the release

2.1. Choice of release site

- The release site should be preferably within the historic range of the population from which the animal(s) proposed for release originate or descend.

- The release should only take place where the habitat requirements of the species are satisfied, and likely to be sustained for the foreseeable future.

- Local experts should be approached, through the Scientific Committee if appropriate, to determine the status and biology of wild populations at the release site and to determine the species' critical needs. This could involve collection of information on habitat preferences, intraspecific variation and adaptations to local ecological conditions, social behaviour, group

composition, home range size, shelter and food requirements, foraging and feeding behaviour, predators and diseases.

- The release project should consider any potential impact on the native population of the species in the area into which the animals are proposed for release. Preparation for the release should therefore include research and/or consultation on the past and present abundance of the species/population from which the animals originate or in the area into which the animals are proposed for release.

2.2. Evaluation and preparation of the animal(s) for release

- Cetaceans proposed for release must be subjected to a thorough veterinary screening process before transportation to the acclimation or release site. This is to ensure absence of any non-endemic or contagious pathogens with the potential to have an impact on the native population of the area into which the animals are proposed for release. The precise nature of this has yet to be defined but such screening is key to minimizing the potential for transmitting lethal disease agents into wild populations. Any release should abide by the protocol for the veterinary screening of cetaceans as presented in Appendix 1.

- Information on the age, sex, reproductive status, history (including, where appropriate, time in captivity, number and species of other animals in the same facility), population origin (and exact location of capture, if applicable and known) and health (present and past) of each of the animals proposed for release should be made available.

- Cetaceans proposed for release should preferably be of the same subspecies as the native population of the site chosen for release and show similar ecological characteristics (morphology, physiology, behaviour, habitat preference).

- Local endemic or epidemic infectious diseases should be vaccinated against, prior to release.

- Body condition should be appropriate for the environmental conditions at the release site.

- Cetaceans to be released should be given the opportunity to acquire the necessary experience to enable their survival in the wild, through training and/or conditioning in the captive environment or in a temporary holding enclosure at the release site, where appropriate.

- Cetaceans should demonstrate the following behavioural characteristics prior to release: a) foraging capability b) normal (non-habituated) behaviour towards humans and human structures c) lack of sensitivity to any monitoring equipment.

- The proposed release of captive-bred animals should remain subject to review.

2.3. Logistics of the release

- Persons involved in the planning of a release should consult the available literature, seek expert advice and submit a detailed proposal to the ACCOBAMS Secretariat and the Scientific Committee for full review and consultation with the appropriate national and regional authorities.

- Personnel and other stakeholders involved in the release project should be multidisciplinary and could include government personnel, natural resource management agencies, non-governmental

organizations, funding bodies, universities, veterinary institutions and other expert bodies, providing a full range of suitable expertise.

- Appropriate local and national authorities and interests should be informed about the project noting that where animals may migrate across national boundaries, more than one national authority may need to be approached.

- The release project should have all the necessary national and international permits to ensure the legality of the release.

- The estimated costs of the project should include the full release and monitoring programme and the availability and reliability of the financial and logistical resources required to carry it out.

- Plans for the transportation of animals to the release site should include measures to minimize stress and other health-related problems during transport and ensure access to a suitably qualified veterinarian at all times.

- Measures should be taken to ensure that accurate information is provided to local, national and international interested parties and the media.

- Measures should be taken to ensure the released cetacean is not at risk from human activities at the release site, including provisions to reduce the impact of public interest on the success of the release and to ensure that the released cetacean(s) pose(s) no risk to local inhabitants.

3. On-site rehabilitation and release

- Following transportation, acclimation prior to release should take place in a suitable environment, preferably in an enclosed sea pen in a sheltered bay, exposed to the natural forces and environment of the sea (e.g. waves, rocks), with an adequate supply of live fish for the animals to establish hunting techniques. The provision of a 'halfway house' of this type can provide the means of gradually returning the animals to the wild, while enabling monitoring of their condition in their natural environment prior to release. It could also provide a site to which the animals can be returned in case of illness or other incapacity following release.

- A suitably qualified veterinarian should be available throughout the rehabilitation process and cetaceans should undergo further veterinary screening prior to release.

- Release into the wild environment should occur as soon as the animals demonstrate the behavioural characteristics referred to in 2.2. and environmental conditions are deemed fit for the release to be carried out.

4. Post-release monitoring

- Post release monitoring of all cetaceans released should be carried out.

- Monitoring techniques should provide sufficient information about the post release activity without disrupting the normal activities of the animal.

- Photo-identification techniques, which use a photograph taken of both sides of a cetacean's dorsal fin, can be used to identify released individuals. By circulating photo-identification images throughout the fishing community and to other boat users, sightings of released individuals can be monitored. Information can also be distributed throughout the community close to the release site to encourage the reporting of sightings. Other monitoring techniques, including freeze-branding, tagging and telemetry should be subject to review, according to the provisions of ACCOBAMS Resolution 2.8.

- In addition, dedicated demographic, ecological and behavioural studies of released cetaceans should be undertaken to contribute to a study of long-term adaptation by the individual(s) released and the native population. The study should record factors such as the behaviour, body condition and association with conspecifics of the released cetaceans.

- Measures should be put in place to ensure any problems with the release can be addressed, such as the collection and investigation of mortalities, interventions (e.g. supplemental feeding, veterinary aid) and decision-making in relation to revision, rescheduling, or discontinuation of the programme where necessary, including animal recovery and placement.

- Public relations activities, including education and media coverage, should continue post-release, with the goal of helping to contribute to the success of the release.

5. Evaluation of the release

- A written evaluation of the release and any post-release monitoring should be presented to the ACCOBAMS Secretariat.

- Project managers should also seek publication of the results in scientific and popular literature.

APPENDIX 1

DISEASES TO TEST FOR BEFORE RELEASING REHABILITATED CETACEANS

The following list of diseases has been described from wild cetaceans. They do not all have the same level of pathological effect and thus pose varying levels of threat to free-ranging cetacean populations.

The only disease agents, at this time, for which screening is essential before releasing a rehabilitated cetacean, are the morbilliviruses; this is due to their potential to cause an epizootic if released into a naïve population.

Brucella and erysipelas are contagious but do not appear to have the potential to create mass mortalities. Testing for these diseases before releasing a rehabilitated cetacean should depend on the clinician's evaluation of the animal's state of health and the potential risk for the wild population.

Even if the tests described below are negative, the clinician must make the final decision for release, as a disease can be subclinical, and different factors can influence the correct interpretation of a diagnostic test. The clinician's overall evaluation of the patient should therefore prevail over laboratory tests.

MORBILLIVIRUS

Morbillivirus are RNA viruses that infect both odontocetes and mysticetes. Different strains have been identified (i.e. Dolphin Morbillivirus = DMV & Porpoise Morbillivirus PMV) but are believed to represent the same viral species (CMV = Cetacean Morbillivirus). Relatively recent outbreaks have caused extensive die-offs, including the striped dolphin epizootic in the Mediterranean Sea in the early 1990s. Morbillivirus may be enzootic in certain cetacean species (for example, long- and short-finned pilot whale (*Globicephala melas* and *macrorhynchus*)).

This virus causes typically pneumonia, encephalitis and immunosuppression, which allows secondary infections to develop, which may lead to the death of the animal.
It is recommended that stranded dolphins and whales should always be tested for morbillivirus before they are released, as they could be the source of a mortality event if they were to be shedding the virus in a naïve environment.

The infection involves a viremia during which the virus can be isolated or amplified with the help of RT-PCR (Reverse Transcription Polymerase Chain Reaction) from the animal's serum. An active infection can also be identified checking antibody titers. Before release, dolphins and whales should be checked for serological evidence of active infection. It is therefor important to have collected and, if possible stored, serum for this successive tests to be carried out. A monoclonal antibody-based competitive enzyme-linked immunosorbent assay (C-ELISA) can be used on sera from several species, which avoids the need for multiple anti-species enzyme conjugates.

BRUCELLOSIS

Marine *Brucella spp.* is a Gram negative bacteria that has raised a lot of concern in recent years, as it has been proved to be responsible for some cases of zoonosis. Cetaceans can get infected by marine strains of *Brucella*, but the infection is generally of little concern. *Brucella* is known to have caused abortion in captive bottlenose dolphins (*Tursiops truncatus*), reproductive tract lesions in minke whales (*Balaenoptera acutorostrata*) and brain lesions in striped dolphins (*Stenella coeruleoalba*).
The infection comprises a bacteremia during which the bacteria can be isolated by culture from the blood, or its DNA can be amplified using PCR. An active infection can also be identified looking for antibody titers. A basic competitive enzyme-linked immunosorbent assay test (C-ELISA) using *Brucella abortus* can be used. If the animals has high(er) titers, an active infection is still present and the animal may be shedding bacteria in its environment.

ERYSIPELAS

The causative agent of erysipelas is *Erysipelothrix rhusiopathiae*, a Gram-positive, rod-shaped bacteria. In the wild, cetaceans can be occasionally infected by Erysipelothrix, and two types of disease can result. The first one is a subacute cutaneous form characterised by rhomboid (diamond shaped) skin pigmentation; the second one is an acute systemic form that rapidly leads to death. No epidemics have been described so far.

ELISA or microtitration agglutination testing for high or increased *Erysipelothrix sp.* antibodies can identify animals that are still diseased. It is important to have sera from the start of the rehabilitation in order to be able to follow the serological evolution.