## REFINEMENT OF TECHNIQUES FOR CAPTURE, IMMOBILIZATION AND MARKING

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Chemical immobilization of wild animals is a form of veterinary anesthesia conducted under the most difficult circumstances. Anesthetic drugs are never completely devoid of toxicity and induction of anesthesia invariably carries a risk to the life of even healthy patients. The risk of severe side effects, injuries and death can never be completely eliminated. In addition, several immobilizing drugs are toxic and potentially lethal to humans. Chemical immobilization of free-ranging wildlife should only be considered if it is necessary to accomplish research or management goals, and should be carried out by a team of professionals with proper training, experience and expertise in wildlife capture, veterinary anesthesia, animal handling and basic first aid and CPR techniques. All captures need to be properly planned and a detailed protocol for anaesthesia, handling, monitoring and marking should be established for each species. If possible, chemical immobilization of cervids and large carnivores should be carried out in winter or spring, on snow-covered ground. High ambient temperatures, open water, and bare ground make captures more difficult and will increase the risk of accidents and mortality. Although a number of different capture techniques are available, darting from a helicopter is the most efficient, safest and probably least stressful method in most species and situations. Net-gun capture of wild animals is not recommended due to the extreme risk of helicopter accidents and due to animal welfare considerations.