

## SPECIAL CHALLENGES IN FIELD RESEARCH ON MARINE MAMMALS

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Marine mammals are not often kept as “laboratory” animals in the classical sense, but many species are held as aquarium and zoo attractions, and at various times military interests have also resulted in a variety of marine mammals being held in captivity. Rehabilitation centres for stranded marine mammals are another type of facility that houses marine mammals for variable periods of time. Scientific investigations done on animals “in care” have provided fundamental information regarding the physiological and behavioural capacities of these animals and a lot of information on health-related issues. However, understanding their natural ecology necessitates field studies conducted on free-living animals. But, the very fact that these animals are “marine mammals” means that they have undergone evolutionary change from the basic mammalian body plan that “complicates” handling these animals in the wild for scientific purposes or providing appropriate care for them in captivity. To name a few of these issues, marine mammals have: large body size(s); they often must be captured and held in water but must be able to breathe in-air; most species are naturally apnea breathers which complicates usual drugging protocols; their blubber is concentrated in a layer beneath the skin and they have circulatory systems that have undergone quite major alterations to deal with diving; their body form is not amenable to “collars”; and many species are intelligent, highly social animals with highly developed senses that can be impacted by inappropriate handling/care/stimuli. Veterinary medicine of marine mammals is highly specialized and not particularly well developed (compared to that of common domestic species). The extreme popularity of these animals with the public is also both a blessing and a curse when it comes to animal care and/or conducting scientific investigations on marine mammals.