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**PROBLEMS OF PHYSIOLOGICAL RESEARCH ON THE DOLPHIN, TURSIOPS**  
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The Dolphin in particular (possibly Cetacea in general) cannot be safely anesthetized without artificial respiration. The latter is feasible but difficult: the sea-going mammalian respiratory tract requires new methods. These facts make it desirable to use minimal size of surgical intervention attainable with local anesthesia. Despite such limits, much can be done on the dolphin with special techniques. Despite his large brain (1700 gms.), large body (2 to 3 meters long), large mass (70 to 280 kgms.), strong and large jaws, numerous (88) sharp teeth and powerful body musculature, most individuals can be induced to cooperate without serious injury to personnel. Special techniques to minimize trauma to them and to maximize their health are being developed in the hunt, capture, transport, restraint, confinement, isolation, feeding and training areas. Specific research problems in cerebral neurophysiology, underwater phonation biophysics, and social physiology are discussed. (Supported by grant or contract with Office of Naval Research, National Science Foundation, National Institutes of Health, and Air Force Office of Scientific Research.)