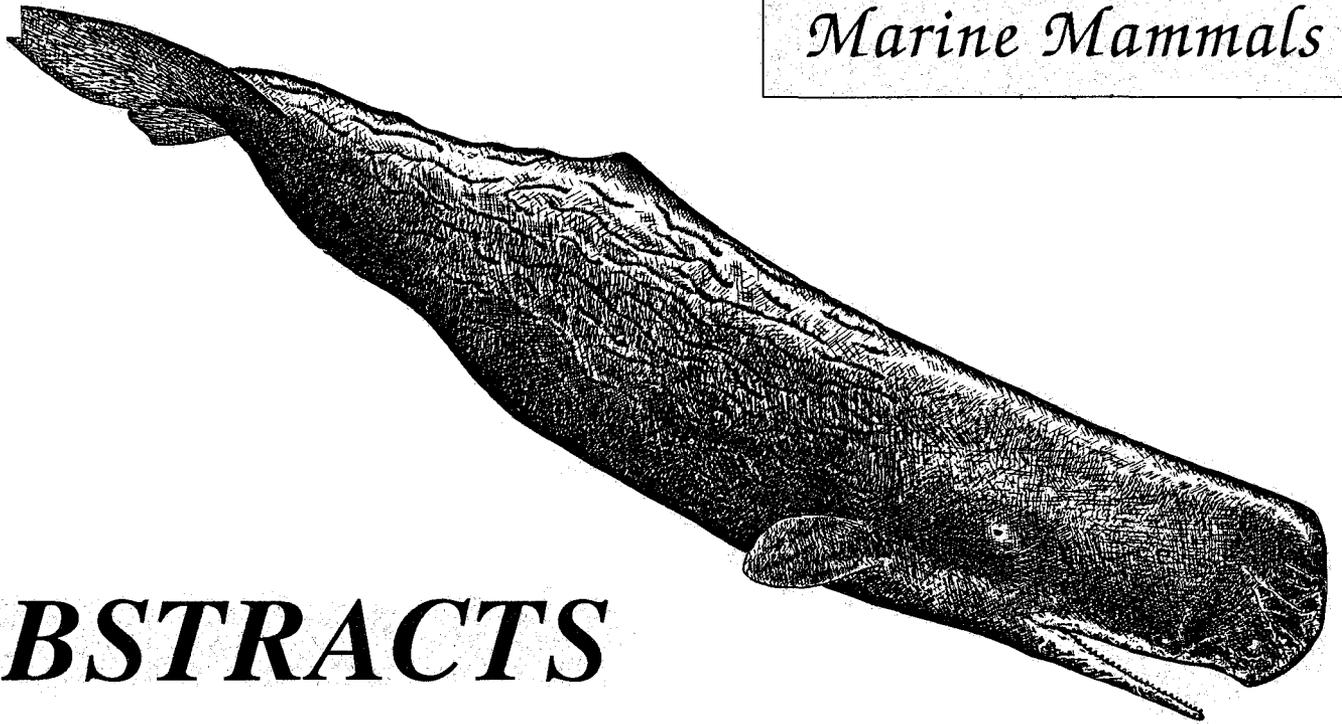


METHODS FOR ISOFLURANE INHALATION ANESTHESIA IN MARINE MAMMALS
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To enable multiple surgical procedures, 32 Steller sea lions, *Eumetopias jubatus*, were anesthetized in field conditions with isoflurane anesthesia after telazol® (tiletamine HCL and zolazepam HCL) restraint. *Eumetopias* adult females and sub-adults were carefully darted from rookeries with Telazol 1.8 to 2.5 mg/kg and either briefly masked or directly intubated with 20 mm Cole equine endotracheal tubes. After intubation they were attached to a large animal anesthesia machine and maintained on approximately 0.5 % isoflurane. 115 California Sea Lion pups, *Zalophus Californianus*, were captured by hand and anesthetized with isoflurane alone. The anesthetic equipment assembled was durable and easily transported by air, boat or backpack. Brass Ohio Kinetometer circuit and Fluotech II vaporizer stood up well to brutal shore landings and miscellaneous transport methods. The vaporizer was kept warm by sodium acetate catalytic hand-warmers in an insulated enclosure. Oxygen was transported by transfilling spun aluminum "E" cylinders and metered by a rugged dial pressure regulator. Monitoring included battery powered pulse oximetry, electrocardiograph (EKG) and electronic temperature probe and careful evaluation of physical signs including head movement, jaw tone, palpebral reflex and capillary refill. Periods of anesthesia ranged from 20 minutes to three hours. Masking pups only required three to four deep breaths for induction and .75 to 1.5 % isoflurane for maintenance. *Zalophus* pups recovered from anesthesia and extubated in one to three minutes. All pups were walking in seven minutes. *Eumetopias* recovery after 180 minutes of anesthesia was back to a telazol character patient which could be safely left on the rock where darted and supervised till awake. Extubation was in six to eight minutes, and significant head and neck movement occurred at 20 minutes or less. Shoulder or full body movement usually occurred at 30 to 60 minutes. Five animals died of darting complications. No complications or deaths were experienced due to volatile vapor anesthesia in this series.

*Tenth Biennial
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ABSTRACTS

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