

Developing procedures and equipment for large shark telemetry studies

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Research effort on sharks has recently increased in South Africa, in part because of concerns regarding the conservation status of many species and the growth of eco-tourism ventures. Furthermore, technological advances in telemetry equipment have allowed investigations into both small scale and large scale movements and behaviour of the sharks. Studies are being carried out on a variety of species including great white sharks (*Carcharodon carcharias*) tiger sharks (*Galeocerdo cuvier*) and raggedtooth sharks (*Carcharias taurus*). Each of these species are large and powerful and require a unique approach for attaching equipment. Techniques used to attach equipment differ between studies and this contribution reviews those recently in use within South Africa. These vary from simple use of Hawaiian slings or spear guns to attach tags onto free-swimming animals to capture procedures that require mechanical restraint cradles for large white sharks. Procedures for attaching equipment that minimize post-release stress to sharks and risk to personnel are described. Also discussed are procedures for blood and tissue sampling, different approaches to anaesthesia and the development of novel attachment methods that result in passive shedding of equipment from the shark.