
Recent Developments in Pop-up Tag Technology in Support of Fisheries Research

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Abstract

The development of increasingly efficient miniature radio transmitters that can communicate with satellites has resulted in concomitantly smaller pop-up tags and higher data throughput. In the case of the Wildlife Computers MiniPAT, detailed temperature and depth time series data can reveal behavior patterns of target species and these very detailed data can be used to aid interpretation of results from other less sophisticated tags. The small size of the MiniPAT tag allows their use on smaller and smaller animals. The same technology has been incorporated into a simplified 'Survivorship PAT' (sPAT) specifically designed to measure whether animals such as sharks and billfish survive after they are released from sport and commercial fisheries. These tags report a summary of the animal's daily vertical behavior from which survivorship can be inferred. To simplify things for the user, these tags are pre-registered with Argos (CLS) and the cost of satellite service is included in the purchase of this tag. Finally, we have developed an even smaller satellite tag that simply reports where it pops off - an electronic 'spaghetti tag' that provides fisheries-independent measures of dispersal patterns and migration.

Keywords: Popup tags, satellite tags, MiniPAT, Survivorship PAT, sPAT, Mark Report PAT, mrPAT

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