



Media Release

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For Immediate Release: **Grey nurse shark: independent survey of numbers sought**

The Nature Parks Association's Nicky Hammond attempted to discredit the Channel 9's Sunday report "The Great Shark Hunt" before it went to air on 25th March 2007 with a media release of 22nd March 2007. The NPA's main thrust was supporting what Fisheries chief scientist Steve Kennelly said of a disputed second survey, that the information wasn't released as it didn't meet the minimum re-sighting requirements of the Petersen mark-recapture procedure used in estimating the population.

The recapture or re-sighting survey on which the population estimate of 416-466 individuals is based occurred between 14th to 29th June 2003 at 44 sites where 313 sharks were spotted, 19 had tags and 50% were juveniles. It was revealed on the Sunday segment that this survey consisted basically of two groups of volunteers, scuba divers and spearfishers. The scuba diver surveys were conducted at known aggregation sites and they spotted 18 tagged sharks from a total of 137 sharks. The spearfishers dived on sites than known aggregation sites spotting 176 sharks of which only one had a tag.

To quote the authors of the NSW Fisheries Final Report No. 63 of June 2004 entitled "Mark-recapture population estimate and movements of Grey Nurse Sharks" by Otway and Burke: "It is extremely important to consider whether the mark-recapture (re-sighting) estimates are representative and unbiased."

AAG's Phil Ingram said "The Petersen method of estimating populations is based on a probability distribution-based formulae which must satisfy a number of assumptions. The data of the second survey, though not meeting the minimum re-sighting requirements, does invalidate three of these seven assumptions required for the Petersen technique. The discrepancy of the data in the June survey together with the data from the second, indicate tagged individuals do not appear to disperse throughout the untagged population; all animals do not appear to have the same probability of initially being tagged; and the recapture or re-sighting sample does not appear to be a random sample. These three assumptions are the major ones that ensure the estimates are un-biased and representative, and these have not been met."

Phil continues "Surely there are grounds for an independent survey to confirm Fisheries population estimates. Isn't repeatability of results one of the basic tenets of science?"

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