Implementation of a Camera Monitoring Program for the Loggerhead Turtle (*Caretta caretta*) Rookery at Turtle Bay, Dirk Hartog Island, Shark Bay

David Holley¹, Kim Friedman², Linda Reinhold^{1*} and Terry Cowell¹

¹Department of Parks and Wildlife, Shark Bay District Office, 61 Knight Terrace, Denham, W.A. 6537

²Department of Parks and Wildlife, Marine Science Program, Locked Bag 104 Bentley, W.A. 6983

*Presenter – contact: Linda.reinhold@DPaW.wa.gov.au

Shark Bay District has for the past 3 years been trialling the use of a remote camera for monitoring nesting at the Turtle Bay loggerhead rookery on Dirk Hartog Island in the Shark Bay World Heritage Property. The camera, a Mobotic M24, has been situated on the cliff line above the largest of the nesting beaches in the Turtle Bay nesting complex. The field of view of the camera encompasses approximately 50% of the available nesting area of this beach. Images of the beach are taken at regular intervals in the early hours of each morning during the nesting

season. The quality of the images is high and individual turtle tracks can easily be identified and counted from the previous night's activities. Ground truthing of track counts has occurred during the 2009 nesting season. Issues with the camera have included complexity of the associated software, remoteness of the location and impacts from extreme weather conditions. Further trials will involve the use of smaller and more robust systems with greater numbers of cameras to cover more of the available nesting areas.