

Cape Cod Astronomical Society
Minutes of May 5, 2011 Meeting

Attendance: Total 30 Members 26 Guests 4

President Tom Leach opened the meeting at 7:32 P.M. Tom welcomed members and reviewed the latest newsletter. .

Presentation

Tom Leach introduced our speaker for the evening, Dr. Gregory Skomal. This was an unusual but very interesting departure from our normal astronomy lectures. Dr. Skomal has been a senior fisheries biologist with the Massachusetts Marine Fisheries since 1987 and currently heads up the Massachusetts Shark Research Program (MSRP). For more information, reference <http://www.mass.gov/dfwele/dmf/>. He has also been associated with educational programs for television, including the Discovery Channel, National Geographic, and ESPN. The lecture revealed the methods and procedures for tagging sharks and tracking the behavior.

The more common way of tagging sharks started in 1964 with approximately 200,000 sharks tagged to date. This method involves attaching tags to the sharks fin. The recovery rate has been about 4%. This method gives long term data regarding life span, growth and some information regarding movement. A newer method, acoustic telemetry uses a transmitter attached to the shark that allows researchers to follow the precise movements of the shark for up to five days. This gives much more insight into the daily movements and habits of the shark, including distances traveled and depths the sharks reach. This method is usually used with juvenile sharks in a relatively restricted area. The latest method for tracking is satellite based. This allows for large scale, high resolution information to be obtained. Tags with transmitters are attached to the sharks. These tags eventually pop off the shark and send information to a satellite. The advantage to this method, is a long term extremely detailed study of a sharks behavior. The downside is the high cost associated with purchasing the tags. These methods have provided insight into the migratory behavior (including transoceanic crossings), feeding and other habits .

One study closely followed the behavior of great white sharks in California, South Africa, Australia and Mexico. Dr. Skomal was recently involved in a program to tag great white sharks in Cape Cod waters. In 2009, he successfully tagged five great whites here on the Cape. They have often been spotted in “hot spots”, which are areas that have large colonies of seals that provide an abundant food source for them.

Dr. Skomal also provided insight into studies that have been trying to determine the way that sharks navigate oceans for thousands of miles. Research has shown that sharks have electro sensory organs that allow them to detect the earth’s electro-magnetic field

Observatory Report

CCAS member Bernie Young brought members up to date on the latest efforts to complete the Gemini telescope project. This is a project that will allow CCAS observers to operate a telescope remotely and also allow for observation through a video monitor rather than a traditional eyepiece. He also showed a video that shows lunar occultations. A star could be seen disappearing behind mountains on the moon and reappearing a few seconds later.

Star parties will resume on June 16th. Please reference the CCAS website for up to date information regarding star parties and other events.

Business Meeting

Tom Leach shared recent photos from NASA and other sources.

On May 24th the new Harwich Observatory at the Harwich Elementary School will be opening.

The meeting adjourned at 9:30 P.M.

Respectfully submitted

Charles Burke