

## Coming Soon...New Products and Advances

As our 20-year celebration winds down, we are pleased to announce that several new products will be unveiled at our conference in March 2012.

### 17g Solar Argos/GPS

Our 22g solar Argos/GPS bird transmitter released in 2007 allowed for examination of fine-scale movement and migration patterns of birds weighing down to 700g. Deployments of prototypes of a new 17g solar Argos/GPS PTT have been extremely successful. This 17g version has the same capabilities as its larger cousins, and will now allow fine scale studies of species down to 500g.



### Solar GSM/GPS

While the Argos satellite system has allowed for ground breaking research on bird migration, radio interference in some parts of the world makes the Argos system unsuitable for many studies. Over the last three years we have been working on a range of transmitters using the worldwide GSM system. Deployed prototypes have given very reliable results. In 2012, we will introduce GSM versions of our existing GPS enhanced units. A total of five models similar to our Argos/GPS PTTs will be available.



### E-Tag

Production prototypes of the long-awaited "E-Tag" are now being evaluated. Smaller than the X-Tag, this new archival tag will allow smaller fish to be satellite tagged. The E-Tag will also allow for multiple, sequential pop-off locations on larger species. It will first be available in limited quantities starting March 30, 2012.

### X-Tag

The X-Tag is presently the smallest and most advanced device for satellite tracking of marine fish migration. The latest upgrades to the X-Tag include the addition of the "Big Eye"™ light sensor to the nose of the tag, similar to our larger standard archival pop-up tag. This overcomes biofouling of the original, smaller light sensor encountered in some studies. Together with an enhanced dawn and dusk sensing algorithm, these modifications have resulted in more accurate light-level measurements, leading to better geolocation estimates



and hence, better tracks. Additionally, the dynamic depth sensor scaling has been further enhanced to reduce future "Delta limited" depth readings caused by a rapidly diving or ascending fish—by scaling the resolution to accommodate the highest rate of depth change in that particular data packet.

## MTI Travels to India...

The Government of India has begun a study to examine yellowfin tuna (*Thunnus albacares*) migration from offshore waters using X-Tags. In order to help familiarize the multi-institutional group with the technology, Lance Jordan and Lucy Howey-Jordan traveled to the port city of Visakhapatnam for a two-day training workshop. MTI is grateful for the kindness and hospitality of INCOIS, CMFRI, and FSI. It was truly an amazing experience – we wish them a successful project!



Lucy, Lance and the group of researchers after the tagging demonstration.



Tagging practice on yellowfin tuna specimens.