The restoration achievements for puffins and terns on the Maine coast have many lessons for the management of seabirds worldwide. To help share successes from Maine seabird restoration, Steve Kress and other staff have attended many symposia about seabird conservation this year. Some of the presentations from 2010 include (click on the title to read an abstract or summary):

- **Pacific Seabird Group**: Plenary talk: *The Science and Art of Seabird Restoration; Lessons Learned from the Gulf of Maine and Beyond* and a co-authored paper *Comparison of Five Social Attraction Common Murre Restoration Projects*. February 18, 2010, Long Beach, CA.

- **Chinese Crested Tern site visit**: Daniel Roby of Oregon State U. attended to present a co-authored presentation: *Use of Social Attraction for Restoring Seabird Colonies* with Steve Kress about tern restoration. July 12-17, 2010, Hangzhou City, China.

- **First World Seabird Conference**: *Predicting Outcomes of Seabird Restoration Projects*. By Kress and Hall and A World Review of Seabird Restoration Projects by Jones and Kress, 10 September, 2010, Victoria B.C.


A recent review of the use of seabird social attraction (decoys and recorded sound) and translocations found that these methods - pioneered by Audubon’s Seabird Restoration Program - have been used in 14 countries to help 49 seabird species. The paper, titled: *A Review of the World’s Active Seabird Restoration Projects* by Holly Jones and Stephen Kress is in final review for publication in the *Journal of Wildlife Management*. The following is an update from some of the projects identified in the paper.

**Short-tailed Albatross**: Thought to be extinct in 1949 after millions were slaughtered for their feathers, these giant birds (with a wingspan of more than 7 feet) are making a steady comeback at their largest nesting colony on Torishima Island located about 375 miles south of Tokyo. Here, Dr. Hiroshi Hasegawa of Toho University has just returned from his 105th trip. He reports record numbers at the island. His December, 2010 census found 481 nesting pairs, most of which nest on the main subcolony (an increase of 35 over 2009). These nests are located on steep slopes of volcanic sands that are subject to landslides and erosion. The new subcolony that he started using decoys and sound recordings (on a location safer from erosion) included an additional 79 pairs (up by 22 pairs since 2009).

Equally exciting are the early results from the translocation project that has so far moved 40 Short-tail chicks from Torishima to Mukojima Island in the Bonin Islands of Japan - about 220 miles southeast of Torishima Island. Like Torishima, the original colony on Mukojima was decimated by feather hunters. To date, nearly all of the translocated chicks have successfully fledged and satellite transmitters attached to the birds show that they are acting normally. The project was thrilled this year when two Black-footed Albatross began courting. These were translocated as chicks to the island in 2007 to test chick-rearing methods. The Mukojima albatross study is a cooperative project of the Yamashina Institute for Ornithology in Japan, the Japanese Ministry of Environment and the U.S. Fish and Wildlife Service.
Dr. Hasegawa’s long-term management of Torishima Island is also having some unexpected events with pioneering spirited albatross surprisingly making nesting attempts (near Laysan and Black-footed Albatross) at new sites where there has never been historic records of nesting. The natural range expansion into the NW Hawaiian Islands is a dramatic example of natural recovery following assisted, hands-on conservation. Reported by Dr. Hiroshi Hasegawa, Toho University and Dr. Tomohiro Deguchi, Yamashina Institute for Ornithology.

Kure Atoll

On October 31, 2010, a likely female-female pair of Short-tailed Albatross was discovered incubating a two egg clutch at Kure Atoll, located 48 nautical miles beyond Midway Atoll in the NW Hawaiian Islands. This is presumed to be a female-female pair because albatross typically lay just one egg. The older parent is 17 years-old, banded in Japan as a chick on Torishima Island by Hiroshi Hasegawa in [1983] 1993. The second bird attending the nest was banded in 2000, also at Torishima Island by Dr.Hasegawa. Reported by Cynthia Vanderlip, Kure Atoll Seabird Sanctuary Manager.

Midway Atoll NWR

On November 16 an egg was discovered under a presumed male Short-tailed Albatross that has been attending a site on Eastern Island at Midway Atoll NWR annually since 2000. This bird was banded as a fledgling on Japan’s Torishima Island in 1987. In 2007 the presumed female of the pair, also banded as a fledgling in 2003 on Torishima (still in sub-adult plumage), began returning to Midway and both birds have been observed displaying together and preening each other each year since then. In 2009 they arrived in October and built a nest cup, but no egg was ever observed.

The nest is located in the center of the Short-tailed Albatross decoy plot which was initiated in 2000 when three different short-tails from Torishima were visiting Midway Atoll. The decoys include 16 (10 adult and 6 immature plumage) realistic Short-tailed Albatross decoys replicated from an original carving by famed wild bird carver Haruo Uchiyama of Japan. These decoys and recorded sounds were provided by the Short-tailed Albatross Fund, the Sekisui House Umeda Operation Company, and a Japan’s non-profit organization, the Oceanic Wildlife Society.

Wild bird carver Haruo Uchiyama creating Short-tailed Albatross decoys

The remainder of the decoys were donated to the project from the Audubon Seabird Restoration Program. These stylized decoys (created by Mad River Decoy of Waitsfield, VT) were originally used to attract Laysan Albatross to a project on Oahu in 1994 and were then donated to the Midway Atoll NWR and repainted as Short-tailed Albatross in 2000.

Seabird watchers worldwide are thrilled with the news that halfway across the Pacific on Midway Atoll National Wildlife Refuge, two Short-tailed Albatross have successfully hatched a chick. News of the chick - which hatched January 14th - is significant because most of the world’s Short-tailed Albatross presently nest on an active volcano in Japan. Both parents hatched on Torishima Island Japan and found their way to Midway Atoll where they have nested among decoys provided by Project Puffin and several Japanese collaborators. Read more about this exciting news by clicking HERE. Reported by John Klavitter, Acting Refuge Manager, Midway Atoll NWR.
Heermann's Gull: A restoration project for this vulnerable gull at San Roque Island off the west coast of Baja California had an encouraging season this year when 26 breeding pairs started nesting around Heermann's Gull decoys and a sound system. The new colony fledged 25 chicks!!!

Heermann's Gull is listed by the International Union for Conservation of Nature and Natural Resources as 'near threatened' and vulnerable to human disturbance because 90-95% of the total world population breeds on one Mexican island, Isla Rasa. Heermann's Gull is also an Audubon Watchlist species because of having so few nesting islands. Rasa Island was made a wildlife sanctuary in 1964 and populations in the area are increasing - a good background for recolonization projects such as the San Roque Project. The seabird restoration project at San Roque is conducted by Grupo de Ecología y Conservación de Islas (GECI) with the support of the Natural Protected Areas Fund (FANP) and the Packard Foundation. Reported by María Félix-Lizárraga, biologist for GECI and Josephine D. Herz Seabird Fellow for the Audubon Seabird Restoration Program.

Cahow: In Bermuda, 2010 was a record nesting season for the endangered Cahow, with the number of nesting pairs up to 92 and the number of chicks exceeding 50 for the first time since the rediscovery of the species, with 52 successfully fledged. The new colony on Nonsuch Island that has resulted from translocation of chicks continues to grow with 19 of the translocated birds having already returned as adults and recaptured on the island, 7 pairs are now established in burrows, and a second chick has successfully fledged from this new site (which was last occupied in the 1600s).

On Sept. 20-21st, Hurricane Igor struck Bermuda as a category 2 hurricane and caused extensive erosion with sustained waves of more than 20-25 feet. Some artificial burrows were damaged, but are now repaired. Fortunately, the Cahow were at sea during the storm. Most are back now with five new pairs already discovered and at least three pairs are digging out burrows at Nonsuch Island. Reported by Jeremy Madeiros of the Bermuda Department of Conservation Services.

Hutton's Shearwater: The Hutton's Shearwater Project on the Kaikoura Peninsula of New Zealand is celebrating an "early Christmas Present" with the discovery of a translocated Hutton's Shearwater that was found incubating an egg at their new colony site. The first breeder was translocated to the new colony site along with other hand-reared chicks between 2005 and 2008. Playback recordings of the birds were used to help attract them to the location. This first nesting is two years earlier than anticipated as the species typically nests for the first time when it is about six years old. The first nesting is in an artificial burrow within a recently fenced off peninsula. The predator proof fence offers the ground nesting seabirds safety from predators. Previous to this nesting, the world’s entire population of Hutton’s Shearwaters was restricted to two mountain locations where the population is vulnerable to introduced mammal predators such as mustelids (stoat and ferret), and Norway rats. For further details on this project and a photo of the first nesting bird, click HERE.
Caspian Tern: Artificial islands are becoming an increasingly important tool for the management of Caspian Terns and this method has great potential for other island nesting waterbirds that suffer from a lack of safe nesting places. For Caspian Terns, the use of islands also helps to encourage the birds to nest at sites far from critical fisheries and serves as a strategy for reducing predation on commercially valuable salmon as well as rare and endangered salmon populations.

Suitable nesting islands are often scarce because of a variety of human-caused factors, including human disturbance, introduced predators, introduced vegetation, island erosion, and sea level rise. A project sponsored by the U.S. Army Corps of Engineers, in conjunction with the U.S. Fish and Wildlife Service and NOAA Fisheries, is building artificial islands for Caspian Terns and other colonial waterbirds, including a floating island made of recycled plastic that is the largest of its kind in the world. Researchers from the USGS-Oregon Cooperative Fish and Wildlife Research Unit, Oregon State University, and Real Time Research are monitoring and evaluating the efficacy of island-building as a means to restore Caspian Terns as a nesting species to a number of sites in western North America. The Corps has built 8 of 10-13 new islands planned as nesting habitat for Caspian Terns and other colonial waterbirds in California and Oregon. An additional 2-5 artificial islands are planned for the San Francisco Bay area, where the breeding population of Caspian Terns has been in decline due to declining availability of suitable nesting habitat.

One of the first tern islands that the Corps built was a 1-acre rock-core island in Crump Lake in the Warner Valley of south-central Oregon, which was remarkably successful in attracting nesting Caspian Terns and other colonial waterbirds (such as California and Ring-billed Gulls). In 2009, just the second breeding season for the island, about 670 breeding pairs of Caspian Terns attempted to nest on the island. In 2010 only 71 pairs Caspian Terns attempted to nest at the Crump Lake island, and all failed due to adverse climate and lack of forage fish. In 2010, the Corps also built a .8-acre floating island on Sheepy Lake in Lower Klamath National Wildlife Refuge. In its first year, 258 pairs of Caspian Terns showed up and raised 160 fledglings! Decoys and sound recordings of Caspian Tern colonies are an integral part of attracting the first colonists to the new islands. This success offers great promise that colonial seabirds can benefit from artificial nesting habitats that mimic natural habitats destroyed by development and other human actions. Reported by Daniel Roby, USGS-Oregon Cooperative Fish and Wildlife Research Unit, Oregon State University.