



# THE BELL REPORT

North American Edition

VOLUME 32 | NUMBER 1 | JANUARY-MARCH 2013

## PHASE II OF GALÁPAGOS PROJECT



*Pinzón  
& Plaza  
Sur*

Two years after conservationists successfully carried out an aerial bait drop to get rid of predatory rats on several small islands and islets in the Galápagos Archipelago, the team returned in late November, 2012, this time to eradicate invasive rodents from the uninhabited Pinzón and Plaza Sur Islands.

At 4,500 acres (1,815 ha), Pinzón is home to the Pinzón Giant Tortoise and the largest island in the archipelago to be treated in what is now Phase II of the Galápagos Restoration Project.

On December 8 & 9, operating from two park boats anchored off the shore of Pinzón—the Sierra Negra used as a helicopter platform and the Guadalupe River as the bait loading platform (photo above)—some 25 workers loaded pelleted bait (photo right), manufac-

tured by Bell Laboratories, into the under-slung hopper of a helicopter.

Over the two-day period, pilot Hamish Sheild, flying tight parallel lines across the island, dispersed a total of 45,635 lb. (20,700 kg) of bait to eradicate the island's rats.

Days earlier, on November 30, the team conducted a similar land-based operation to eradicate invasive house mice on the smaller Plaza Sur (30 acres/12 ha), aerially spreading some 490 lb. (223 kg) of bait.

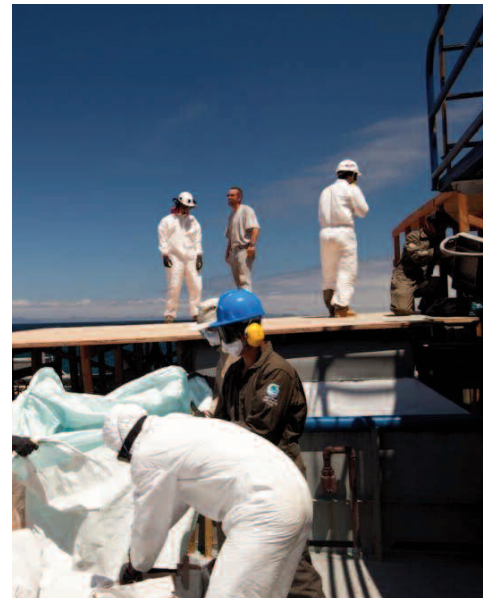
Eradicating invasive house mice, Norway and black rats, which came to the islands centuries ago aboard the ships of whalers and explorers, is a top conservation priority for the Galápagos Islands.

Rodents are among the most serious threat to the rich biodiversity of this treasured ecosystem. Preying on the eggs and

hatchlings of birds and reptiles, rats threaten fauna, as well as native flora, with extinction. Rats have prevented Pinzón Giant Tortoises from successfully reproducing in the wild for nearly 150 years.

Called the largest rat eradication in South America, this costly but necessary project, carried out 600 miles from Ecuador's coast, is supported by the Galápagos National Park, California-based Island Conservation, the Charles Darwin Foundation, Bell Laboratories, The Raptor Center of the University of Minnesota and private partners.

Prior to the Pinzón bait drop, conservationists gained valuable expertise and knowledge from the 2011 baiting on the smaller islands of Rábida, Bartolomé and ten islets. The Pinzón/Plaza Sur operation has moved them one step closer to their next mark of restoring Floreana Island. Ten times larger than Pinzón, Floreana supports nine globally threatened



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# Galápagos Islands

*from front page*

bird and reptile species and 32 globally threatened plants.

## Two Years of Monitoring Ahead

Back on Pinzón, convinced from GPS data and maps that no areas on this rocky, volcanic island were left without bait, conservationists immediately shifted into long-term monitoring.

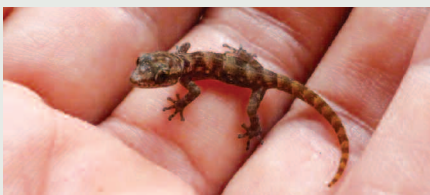
“Monitoring of rats and native species began before the applications and is continuing,” noted Erin Hagen, project manager with Island Conservation. “There were some signs of rats succumbing after the first application.”

Bait availability is also monitored. On some monitored plots on Pinzón, Hagen noted that bait disappeared in less than a week, while on others, pellets persisted for a month. Pinzón is covered in predominantly dry vegetation except at higher elevation, topping at 1,503 feet (458 m) where cloud cover increases humidity.

Pellets break down naturally when exposed to the elements. One significant rain can cause most of the pellets to dissolve very quickly.

It will be two years with no signs of rats before Pinzón and Plaza Sur can be declared “rat-free”, yet past successes on Rábida, now confirmed to be rat-free, leave conservationists hopeful.

## Gecko Discovered on Rábida



As an added bonus, on the last monitoring trip to the island, an Island Conservation team member found a gecko whose identification is currently being determined by Park staff. Geckos were only previously known from 5,700-year-old sub-fossils from Rábida.

Meanwhile, from Rábida, Island Conservation’s Gregg Howald reports that, “doves have been nesting under rock ledges on the ground all over the place, mockingbirds and other birds appear to be in greater number than before, as do lava lizards – at least to me.” ■

*Photo credit: Erik Oberg, Island Conservation*



Restoring valuable island habitat has far-reaching effects. Not only do islands become safe havens for nesting seabirds but other wildlife benefit, as well.

Take the lovely Marsh Fritillary butterfly, one of Scotland’s most threatened species. Its island home in the Inner Hebrides, Scotland, is already showing signs of renewal less than a year after conservationists set out to rid two islands of rats.

“The absence of rats also has a positive impact on the vegetation, valuable habitats for invertebrates, including the Marsh Fritillary butterfly,” said Katherine Snell, an ecologist for the South Scotland reserves who is managing the Oronsay Rat Eradication Project for the Royal Society for the Protection of Birds (RSPB).

“We’re incredibly happy to see signs of success so quickly after the field work.”

## Ghaoideamal and Eilean an Eion

Launched in January 2012, the project involves two small islands, Ghaoidemal and Eilean an Eion (Gaelic for Bird Island), off the west coast of Scotland managed by RSPB. Besides butterflies, the tiny low-lying islands, 7.61 ha and .89 ha respectively, are a sanctuary for Arctic terns, black guillemots,

little terns, European otters and grey seals. As many as 1,000 grey seals use the islands to mate and raise their pups between August and December.

Though uninhabited, the islands became overrun with rats, most likely introduced two centuries ago during a period of extensive shipping along Scotland’s coast. Like other islands with a shared fate, rats destroyed native flora and decimated bird populations.

Snell, who has 11 years’ experience in seabird conservation in Antarctica, the Falkland Islands and Scotland, estimates that rats had colonized the islands entirely. Based on the extensive runs and burrows across the islands, she said populations were exceptionally high.

This project was initiated by Mike Peacock, Reserve Manager for 13 years, and designed and managed by Snell. Fieldwork was conducted throughout the Scottish winters by a small dedicated team of Snell, Peacock (also skipper of the boat), as well as reserve staff and volunteers, and supported by RSPB staff at the Scottish headquarters, including Regional Reserves Manager, Dr. Dave Beaumont.

The project called for a pre-baiting program which encouraged rats to investigate a



Launching the project boat - with Eilean Ghaoidemal in the background.

*Photo credit: Katherine Snell & Mike Peacock*

## Martin Kuffel joins Bell as Northern European Manager

**M**artin Kuffel joined Bell Laboratories in January as Northern European Manager, representing Bell products to the professional pest control and agricultural markets in Austria, Belgium, Germany, Poland, Switzerland, and The Netherlands.

Kuffel provides product information and training sessions to Bell's distributor sales representatives and their pest control customers, as well as to Public Health Authorities, on the proper use and application of Bell rodent control products. He also works closely with distributors and their sales staff to develop and monitor promotional/marketing programs of Bell products to increase market share.

In the field, Kuffel conducts training workshops and lends technical support on pest control strategies, including accompanying distributor reps and technicians on inspections at hard-to-control rodent infestation sites.

In the agricultural/animal health markets, Kuffel lends similar support to distributors, wholesalers and large farm stores to identify opportunities for market growth and to assist them in promoting and marketing Bell products, including providing training to their customers.

Kuffel also represents Bell at national trade shows, exhibitions and distributor-organized events in both the agricultural and pest control markets.

Born in Germany, Kuffel earned a bachelor's degree in International Business from HTW Berlin-University of Applied Sciences in 2010. He is currently finishing a master's degree in International Business from Aarhus School of Business in Denmark.

Kuffel worked since 2011 for Bayer HealthCare Pharmaceuticals, Bayer Pharma AG developing a matrix for portfolio analysis and optimal marketing resource allocation in the European market. He also provided strategic marketing support of Bayer's CVRM products.

Kuffel is based in Berlin, Germany, and is fluent in German, Polish and English. ■



grid of bait stations, placed at 50 m intervals across the island. Bait stations were filled with muesli bars and dried fruit. Once rats were used to the stations, the team deployed rodenticide bait.

Because the islands are highly sensitive areas for vulnerable non-target species, such as raptors and otters, Snell wanted to use a first-generation rodenticide to protect non-target species.

"The careful management and monitoring of this type of project is critical in order to avoid secondary poisoning of non-target species," she stressed.

Snell contacted Bell's UK representative, Brady Hudson, for an alternative to diphacinone, which is no longer available in the UK. She ultimately settled on a first-generation rodenticide containing coumatetralyl for the majority of the baiting and supplemented it with Bell's CONTRAC BLOX.

"Only small quantities of CONTRAC were needed to target residual rats or for areas that we couldn't access to deploy bait stations in advance, thus inherently mitigating against secondary poisoning," Snell said.

The team wired bait into bait stations, four per ha, and topped it up until no additional bait was taken.

Despite a winter of gale force winds which made boating to the islands difficult, they checked stations regularly - daily when baiting first started and then once every three days - to assess bait uptake and rat activity.

"The deployment of bait was successful and the uptake of bait by rats was good," Snell reported. "CONTRAC proved to be highly palatable with large quantities of bait taken early in the baiting program, but this rapidly diminished to negligible bait-take after ten days.

"No dead rats were found on the surface nor any evidence of rats taken by predatory

or scavenging birds," she added.

To monitor rat activity, the team again set up a grid of non-toxic cocoa and wax blocks until the start of the bird breeding season.

Monitoring with wax blocks was concurrent with baiting and will continue each winter and spring until the islands are rat free which requires two years with no rat activity.

After that, permanent monitoring stations will be deployed along the coast to detect any invading rats, using Bell's PROTECTA Bait Stations with wax blocks, and with snap traps used outside the bird breeding season.

### Encouraging Signs of Bird Recovery

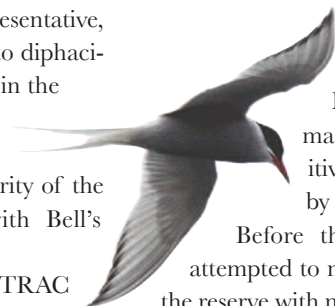
Now at the one-year mark, things are looking positive and Snell is encouraged by signs of bird recovery.

Before the project, Arctic terns attempted to nest on the islands around the reserve with no apparent success. In the summer of 2012, following the first winter of reduced rat activity, 124 apparently occupied nests were counted, and for the first time, the colony of Arctic terns was able to fledge significant numbers of young from Ghaoidéal.

Also, a pair of little terns nested on the island for the first time in three years.

"This is a fantastic result," Snell said, adding that there are fewer than 2,000 pairs of the beautiful, delicate terns in the UK and numbers in Europe are declining.

"Any safe haven we can provide for these birds to breed is incredibly important." ■



When rats were removed, signs of island renewal flourished with Arctic terns, lush vegetation and wildflowers, and Marsh Fritillary butterflies.



New **Publication**

## New Canadian catalog from Bell

Coinciding with Canada's new Risk Mitigation Measures, Bell published an up-to-date product catalog in English and French for Canadian Pest Management Professionals (PMPs) and distributors.

The 54-page Rodent Control Product & Label Guide contains product information and photos of Bell's rodenticides, bait stations, glue and mechanical traps, as well as specimen labels.

The catalog features two 2-page quick reference guides: the rodenticide guide gives an at-a-glance listing of Bell's rodenticides with active ingredient, product features, uses and other useful information, while the second guide lists the features and purpose of bait stations, traps and accessories.

Catalog pages are organized with color-coded tabs according to product type. Specific rodenticide pages give bulleted product features, packaging info, PMRA registration number, product code and bait form dimensions.

New products in this year's catalog include PROTECTA EVO Express and CONTRAC with Lumitrack. ■

## Risk Mitigation Measures in Canada effective January 1, 2013

New Year's 2013 ushered in Risk Mitigation Measures in Canada to reduce the risk of children's exposure to rodenticides and the risk of primary and secondary poisoning of pets and non-target wildlife.

The Canadian Pest Management Regulatory Agency (PMRA) issued the new measures, effective January 1, 2013, regarding the commercial and domestic use of rodenticides containing eight active ingredients:

- Brodifacoum
- Bromadiolone
- Bromethalin
- Chlorophacinone
- Defethialone
- Diphacinone
- Warfarin
- Zinc Phosphide

These measures affect how rodenticide products are labelled and used in and around structures in residential, commercial, agricultural, industrial and public buildings, as well as sewers and closed structures. With few exceptions, they do not apply to "field-use" products.

Similar measures were issued in the U.S. on June 4, 2011, by the Environmental Protection Agency (EPA) which put restrictions, primarily on manufacturers, on the types and package sizes of rodenticides that can be sold to pest control professionals, agricultural users and retail consumers.

In both countries, Risk Mitigation Measures resulted from a scientific review of 10 active ingredients found in rodenticides which concluded that certain active ingredients and bait forms present a greater opportunity for misuse and accidental exposure than others.

The U.S. basically employed weight standards specific to agricultural, professional and retail markets as a way to reduce the risk of exposure. Canada's measures address use requirements for commercial- or domestic-labelled products.

Bell products in Canada comply with and are labelled with the new requirements.

### Highlights for Commercial Labels:

- Can only be used by certified pest control operators, farmers and persons authorized on government-approved pest control programs.
- No package size restrictions.
- All bait forms – Blox, Super-Blox, pellets, meal, powder, liquid - are acceptable.
- Difethialone changed to "Indoor Use Only."
- Indoor/Outdoor use for products, such as CONTRAC and DITRAC: baiting allowed within 15 metres of buildings. Bait can be placed in tamper-resistant bait stations along fence line of properties, outside of the 15-metre limit but within 100 metres of buildings, if station is securely fastened to a fence or the ground.
- Package labels include an updated Use Limitations section that mandates use of bait stations meeting minimum Tier levels.
- All outdoor above ground bait applications must be placed in Tier 1 bait stations. ■

For complete information, go to: [http://www.hc-sc.gc.ca/cps-spc/pubs/pest/\\_decisions/rev2010-17/index-eng.php#exe](http://www.hc-sc.gc.ca/cps-spc/pubs/pest/_decisions/rev2010-17/index-eng.php#exe)

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