

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 Hebridies, 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."

Launched in January 2012, the project involves two small islands, Ghaoideamal and Eilean an Eion, off the west coast of Scotland managed by RSPB. Besides butterflies, the tiny low-lying islands, 7.61 ha and .89 ha respectively, are home to 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 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.

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New Publications

RPM Guides, translated into German and Spanish, take crime scene approach to controlling rodents

ith its highly successful international run in France, New Zealand and the UK, Bell Laboratories' Rodent Pest Management (RPM) Guide is making its debut in Germany and Spain.

Translated into German and Spanish for industry workshops scheduled in February and March, the booklet covers the basics of pest control practices, while taking a "crime scene approach" to solving and controlling rodent infestations.

The 16-page booklet, designed like a detective's office, covers the major areas of rodent pest management, including the

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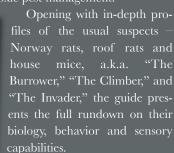
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latest information on bait station security

and non-toxic pest management.



Like good detective work, it then walks technicians through a typical inspection to determine the rodent species involved, the severity of the infestation and high activity areas.

And, of course, there's the motive what led to the infes-

tation? Harbourage, poor sanitation, and a lack of rodent proofing are addressed, along with descriptive photos and ways to correct these problems.

With easy-to-read descriptions of Bell's baits and bait formulations, technicians will have no trouble choosing the right product as the booklet explores all control options in each market, including non-toxic mechanical traps and adhesives. It wraps up with a line-up of Bell's tamper-resistant PRO-TECTA bait stations.

Also available in English and French, the RPM Guide is available through Bell distributors, regional managers and Bell's UK office – phone 01787 379295 or emea@belllabs.com ■



Pinzón & Plaza Sur baited in Phase II of Galápagos project

wo 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 1,815 ha (4,500 acres), Pinzón, known for the Pinzón Giant

Tortoise, is the largest island in the archipelago to be treated in what is now Phase II of this long-term campaign.

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— some 25 workers loaded pelleted bait, manufactured by Bell Laboratories, into the underslung hopper of a helicopter.

Over the two-day period, pilot Hamish Sheild, flying tight parallel lines across the island, dispersed a total of 20,700 kg. (45,635 lb.) 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 223 kg (491 lb.) of bait.

Eradicating invasive house mice, as well as 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.



Clockwise: Team hand broadcasts bait on small islet; Rábida gecko; Park boat, Guadalupe River, prior to constructing platform where bait buckets are loaded and hooked to helicopter; Bait loading platform in operation off Pinzón.

Photo credit: Erik Oberg/Island Conservation

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 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-yearold subfossils 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, mocking-birds and other birds appear to be in greater number than before, as do lava lizards – at least to me."



Martin Kuffel joins Bell Laboratories as Northern European Manager

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-tocontrol 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. ■

Scotland's West Coast

from front page

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 Ghaoideamal.

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."

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