

Helping **the El Hierro giant lizard to survive**

The giant lizard of El Hierro (*Gallotia simonyi*), an emblem for the Canary Islands, was, until recently, considered to be one of the European reptiles most threatened with extinction and one of the most threatened reptiles in the world. LIFE support, in particular in the development of a management plan and a captive breeding programme for the species, has been crucial to improving its chances of mid-term recovery and survival.

Gallotia simonyi was once present in most of El Hierro, the smallest of the Canary Islands (278 km²) located in the extreme southwest of the archipelago. First considered extinct, the species was rediscovered in 1974, in a very small area, 'Fuga de la Gorreta'. Its population was estimated in the 1970s at approximately 1 500 individuals. A first management plan was approved in 1985, but very little was known about the species or of the suitable management measures needed to ensure its future survival.

LIFE Nature supported two projects focusing on conservation of the species, which by the launch of the first project had dwindled to only around 200 individuals existing in a barely adequate habitat. The first project, "Programme for the restoration of Hierro giant lizard *Gallotia simonyi*" (LIFE94 NAT/E/001238) was run by the NGO 'Asociación Herpetológica Española' – the Spanish Herpetological Society, working in close collaboration with the regional government.

This project sought to gain knowledge and to develop a management plan for the recovery of the species. It also introduced a captive breeding programme. The second project, "Reintroduction of El Hierro giant Lizard in its former natural habitat" (LIFE97 NAT/E/00419) was implemented directly by the regional government. It aimed to re-establish a viable population of the giant lizards in the wild through the release of animals bred in captivity.

The el Hierro giant lizard (Gallotia simonyi) in the captive breeding centre





EL HIERRO GIANT LIZARD

A priority species listed in Annex II of the Habitats Directive, the giant lizard of El Hierro is also a wall lizard species, endemic to the island of El Hierro. It was thought to be extinct, until it was rediscovered in 1974. Approximately 0.6 m long, it is a stocky reptile with a broad head and pronounced jowls (flesh under the lower jaw). It is dark grey to brown in colour, with two rows of pale orange patches running along its sides. The belly is mostly brown with orange to red colouration towards the centre. Female young adults have grey backs with four rows of blackish patches and two rows of orange-green marks on the side. Older individuals are mainly black with some grey. The lizard is omnivorous. It eats plants – notably *Senecio kleinia* (Spanish name 'verode') a flowering plant endemic to the Canary Islands and lavender (*Lavandula abrotanoides*) – as well as insects. Mating begins in May and the 5 to 13 eggs are laid from June until the end of August. Their eggs hatch after 61 days.

Originally occurring over a large part of the island, its population was down to around 200 individuals before the LIFE projects and its distribution range was restricted to a zone barely exceeding 2 ha. This zone is located on an almost inaccessible cliff where the Canary Islands' government has designated two Sites of Community Interest to represent the species in the Natura 2000 network.

Aside from the implementation of the recovery plan through the captive breeding programme and the release of individuals in suitably prepared habitats, the main management actions for both projects consisted of the control of possible predators (mainly cats and rats) and competitors for food (goats and other lizards). Both projects focused on raising general awareness on the island of this critically endangered species.

CAPTIVE BREEDING

With the aid of LIFE support since 1994, the conservation status of the

Table 1: Breeding rate of *Gallotia simonyi* (lizards/yr)

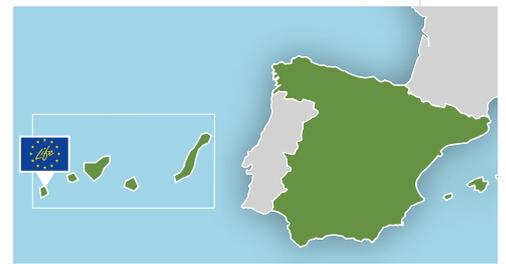
| Year | Newborns |
|------|----------|
| 1995 | 97 |
| 1996 | 89 |
| 1997 | 75 |
| 1998 | 39 |
| 1999 | 101 |
| 2000 | 34 |
| 2001 | 51 |
| 2002 | 40 |
| 2003 | 33 |
| 2004 | 46 |
| 2005 | 57 |
| 2006 | 53 |
| 2007 | 0 |
| 2008 | 100 |

species has improved – albeit from an initial, extremely unfavourable status. Three reintroductions have been carried out at three different SCIs (sites of Community interest): on the islet 'Roque Chico de Salmor', in 'El Julan' and in 'La Dehesa'. These reintroductions have continued after LIFE in 'La Dehesa', where 200 lizards were released in late 2000 and a subsequent management-monitoring-reinforcement plan is also ongoing.

The breeding programme's techniques and methods were refined over the course of the projects and experienced staff hired for the breeding centre. The centre has a protocol for feeding, raising and mating of animals that has proved to be particularly successful. Plants (kitchen garden and those found in their natural habitat) and animals (crickets, mice and worms) are supplied at different stages. A regular veterinary control is also carried out by a specialist from Barcelona. The objective of the mating programme is to achieve the most suitable genetic crosses and have the largest genetic pool to avoid inbreeding (low genetic variability). Eggs are artificially incubated in incubators.

As a consequence, the breeding rate has increased steadily (see Table 1) with new lizards born every year, with the exception of 2007 (see below). This work is helping to ensure the maintenance of a healthy captive population of the lizards and allows for the con-

tinuation of the reintroduction plan to guarantee the survival of the species in the wild.



SPAIN

Project number: LIFE97 NAT/E/004190

Title: Reintroduction of El Hierro giant Lizard in its former natural habitat

Beneficiary: Gobierno de Canarias - Consejería de Política Territorial

Contact: Miguel Ángel Rodríguez

Email: mrodriguez@el-hierro.org

Website: www.gobiernodecanarias.org

Period: Sep-1997 to Feb-2000

Total budget: €465 000

LIFE contribution: €279 000

SPAIN

Project number: LIFE94 NAT/E/001238

Title: Programme for the restoration of Hierro giant lizard *Gallotia simonyi*

Beneficiary: Asociación Herpetológica Española (NGO)

Period: Nov-1994 to Dec-1996

Total budget: €667 000

LIFE contribution: €500 000