

# THE MEDITERRANEAN CHAMELEON



The Mediterranean Chameleon from close quarters

There are some 85 species of chameleons alive today. Most live in Africa and Madagascar but some species of these lizards are also found in India, Sri Lanka and Arabia. One species, the Mediterranean or European Chameleon (known scientifically as *Chamaeleo chamaeleon* and in Maltese as “Kamaleonte” or “Kamaleont”) also occurs in Europe where it is found in the southern part of the Iberian Peninsula and in Crete. Outside Europe it is found in Southwest Asia and North Africa and it has been introduced by man to a number of other places, amongst them the Maltese Islands.

Chameleons were apparently brought over to Malta from North Africa by Jesuit priests around 1880 and released in a private garden in St. Julians. Subsequently, these animals seem to have had a rather chequered career. Writing in 1890 Giovanni Gulia considered them to have become naturalized while Giuseppe Despott writing 25 years later could not obtain a specimen from the garden in St. Julians and did not include the Chameleon in his list of Maltese reptiles.

However, the Chameleon did not die out and although its existence must have been precarious at the best of times it has managed to survive and even spread. Many people when questioned remembered seeing these lizards here and there in the St. Julians region and occasionally further afield. A recent survey by Charles Savona Ventura of all sightings of the Chameleon has revealed that from their humble beginnings in St. Julians these animals are now to be

found in localized areas over the entire southern part of Malta and as far north as Mosta and there is even a record from Xlendi in Gozo! (C. Savona Ventura: personal communication). Quite how the Chameleon is spreading is an intriguing problem.

These lizards are entirely arboreal, spending their whole life in trees and shrubs and only come to the ground to lay their eggs. Clumps of trees or large shrubs are few and far between in the heavily populated southern part of Malta so how does the Chameleon manage to spread? An observation by the author helps to provide a partial answer to this question. A Chameleon placed in a large bush lived quite happily in this for a time but then descended to the ground and made off towards a distant clump of bushes across open ground at what, for a Chameleon, is a great speed, covering some 20 metres in as many minutes. Clearly although normally arboreal and very slow-moving the Chameleon can move rapidly over open ground when it has to. It is also quite likely that people finding this very odd lizard in the wild take back specimens to their own gardens and keep them in semi-captivity thus helping the animals to spread further. The possibility that over the years there have been other introductions of the Chameleon from abroad, particularly by foreign personnel stationed on our Islands, cannot be excluded.

Chameleons are well known for two things – their ability to change their colour and their mode of feeding by capturing insects with their long tongue. In their skin Chameleons have three types of pigment cells: yellow, red and black, each containing pigment granules which can be either diffused throughout the cell or else contracted to a small point. Depending on the number and type of pigment cells which have the pigment diffuse or contracted at any given time, the colour of the skin changes to roughly match that of the background. Since movement of the pigment in the pigment cells is under nervous control, these colour changes can be very rapid. If disturbed a Chameleon will puff itself up, open wide its mouth and rapidly change colour in an attempt to frighten away whoever is molesting it.

When not in use the tongue, which is often almost as long as the entire animal, is coiled on the floor of the mouth. The tongue has two large blood vessels running along its length and a sudden rush of blood into these vessels causes the tongue to shoot out of the mouth with great speed. The Chameleon's aim is





The Mediterranean Chameleon, in a typical posture on top of a tree, has spread all over the southern part of Malta and as far north as Mosta

excellent as a result of its large bulging eyes which are capable of independent movement and binocular vision.

The tongue is club-shaped at the end and has a split tip with which the prey is caught and then brought back to the mouth. The clamp-like feet and the prehensile tail of the Chameleon ensure that the animal remains rock-steady during "shooting" of the tongue. The Chameleon has been reported to feed on a variety of insects such as flies, cockroaches, grasshoppers and butterflies, and on spiders. It does not have any predators locally although cats can be a problem, particularly if the Chameleon is in the open.

Almost nothing is known about the breeding habits of the Chameleon in the Maltese Islands. Elsewhere, the Mediterranean Chameleon lays some 20 to 30 eggs in Autumn. The female descends to the ground, scrapes out a hole, lays her eggs and then carefully covers them with soil. The eggs take from four to 10 months to hatch depending on temperature.

Although not indigenous, the Mediterranean Chameleon has managed to gain a foothold and

survive in the Maltese Islands in spite of the far from ideal conditions. Its slow but steady spread over the Islands speaks of the adaptability of this animal and should be encouraged. However, Chameleons should not be collected to be kept in small confined spaces by people who do not know how to care for them. Particularly, the capture and sale of Maltese Chameleons as pets is to be discouraged. Our natural heritage is there to be enjoyed by all.

#### FURTHER READING

- Despott, G. (1915) The reptiles of the Maltese Islands. *The Zoologist* 89(19): 321 – 326.  
 Gulia, G. (1890) Eptertologia maltese. *Il Naturalista Maltese* 1(2): 14 – 15.  
 Lanfranco, G.G. (1966) *The Chameleon in Malta*. Times of Malta 12/5/66.  
 Savona Ventura, C. (1975) The European Chameleon. *The Maltese Naturalist* 2(2): 41 – 43.

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