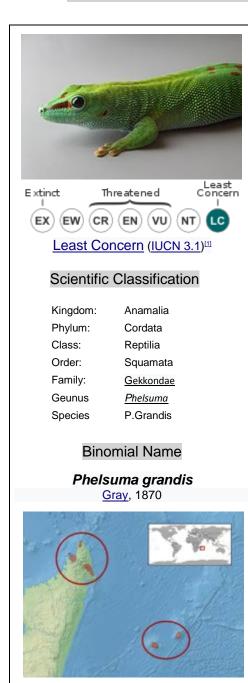
# Phelsuma grandis



#### Synonyms

 Phelsuma madagascariensis grandis <u>Gray</u>, 1870 **Phelsuma grandis** is a diurnal arboreal species of day gecko (*Phelsuma* spp.). These geckos are part of the *Phelsuma* group, which consists of in excess of 70 species and subspecies. They are commonly referred to as the **Madagascar giant day gecko**, due to their large size. They are native to areas of tropical and subtropical forest in northern <u>Madagascar</u>, but have been introduced to several other subtropical locations outside their range. *P. grandis* feeds on various invertebrates, very small vertebrates, and nectars

#### Taxonomy

Its <u>generic</u> name is a <u>Latinized</u> version of the last name of <u>Dutch physician Murk van Phelsum</u>.<sup>[2]</sup> Its specific name *grandis* is Latin for "great".

The species *Phelsuma grandis* described by <u>Gray</u> 1870 was elevated from subspecies status (*P. madagascariensis grandis*) by Raxworthy et al. in 2007,<sup>[3]</sup> after environmental niche modeling revealed significant and reliable differences between it and other members of the *P. madagascariensis*-clade. This elevation has since received further molecular support.<sup>[4]</sup> *P. grandis* possesses also the junior synonyms *Phelsuma madagascariensis venusta* <u>Mertens</u>, 1964 and *Phelsuma madagascariensis notissima* <u>Mertens</u>, 1970 (fide Meier, 1982). The common name, appended to the current accepted name, has been given as Madagascar giant day gecko or variants such as **Giant Day Gecko**.<sup>[5]</sup>

#### Description



P. grandis in captivity, Cincinnati Zoo

This lizard reaches a total length of 30 centimetres (12 in). The body colour is bright green or, rarely, bluish green. A red stripe extends from the nostril to the eye. On the back there are typically red coloured dots or bars. These red markings are quite

variable, and in some cases, completely absent, though the line extending from the nostril to the eye is always present. Some specimens may have small blue spots. Adult specimens may have large sacs on their necks. These are stored calcium sacks. Young individuals of the species often exhibit much more red than their parents, but as time passes, many of the markings fade, to leave those that will stay for the remainder of the gecko's life. The underside of these animals is a creamy white ranging to an eggy yellow. When stressed, the colouration darkens, rendering the whole animal a dark green, and the red markings on the face and back more orange in hue.<sup>[6]</sup>

## Distribution and habitat



Madagascar giant day gecko

This species is widely distributed in northern and northwest Madagascar.<sup>[7]</sup> It can also be found on some of the off shore islets or palms, e.g. <u>Seychelles</u> (on <u>Lodoicea</u>). There are a few recorded populations of this species also in Florida<sup>[8]9]</sup> and Hawaii.<sup>[10]</sup> It was introduced to <u>Reunion Island</u> in the mid-1990s and can be found in <u>Mauritius</u>, mainly in Floreal and in the upper Plain Wilhems.<sup>[11]</sup>

### Diet

These day geckos feed on various insects and other invertebrates, and occasionally have been recorded consuming small vertebrates. They also like to lick soft, sweet fruit, pollen and nectar.<sup>[5]</sup> Geckos in the wild and in captivity have been observed consuming their own young.<sup>[12]</sup>

### Behaviour

Like most Phelsuma species, the males can be quite quarrelsome and territorial and will not accept other males in their neighborhood. They only allow females to enter their territory. In captivity, where the females cannot escape, the males can also sometimes seriously wound a female. In this case the male and female must be separated. Breeding behavior includes, the shaking of the tail or body, vocalizing, and if the female does not accept the male she may turn a darker green. The day geckos may move slowly, but when they are startled they can move very fast. They are known for being very good at escaping their enclosures. Giant day geckos have no eyelids. To keep their eyes clean, they often lick them.<sup>[13]</sup>

# Reproduction

The breeding season is between December and June. During this period, females can lay multiple pairs of eggs. The young will hatch after approximately 48–80 days depending on temperature.<sup>[7]</sup>