



**Photo Credit: Edoardo Razzetti*

House and Mediterranean Geckos (*Hemidactylus* spp.)

Common and Widespread Stowaways

House and Mediterranean geckos belong to a widely cosmopolitan genus of geckos with about 90 to 100 described species found in many tropical to sub-tropical areas of the world, where they often live in close proximity to humans. These geckos are a nocturnal species with large, lidless eyes, distinct toe pads, and a widely variable ground color from light to dark brown, yellowish, tan, whitish, to pinkish with or without faint bands or stripes. The skin and small, granular scales of most species also has tubercles as well. As with many other geckos, house and Mediterranean geckos lack eyelids, and use their thick, fleshy tongues to clean their eyes and pupils. Also as with many gecko species, these geckos possess enlarged toe pads consisting of several rows of lamellae covered in millions of microscopic hairs known as setae. These setae enable the gecko to cling to, adhere, and climb a wide variety of surfaces with ease. Also as with many other gecko species, is the fact that they can vocalize by creating clicking or squeaking sounds when threatened, defensive, or to display territory and social structure. House and Mediterranean geckos are a hardy, extremely prolific, and easily maintained genera of geckos for the beginning herp enthusiast.

Taxonomy

Life: All living, physical, and animate entities

Domain: Eukaryota

Kingdom: Animalia

Phylum/Sub Phylum: Chordata/Vertebrata

Class: Reptilia

Order: Squamata

Suborder: Lacertilia

Infraorder: Gekkota

Family: Gekkonidae

Genus: *Hemidactylus*

Species: *Hemidactylus* spp.*

**Taxonomy subject to change and revision.*

Lifespan and Longevity

If provided the proper care, house and Mediterranean geckos can attain longevity of 5 to 6 years or more.

Distribution and Habitat

The house and Mediterranean geckos are a genus of small to medium sized, arboreal geckos with a cosmopolitan distribution throughout much of the world in most tropical to sub-tropical

regions. Most species, however are native to southern to southeastern Asia, from India, through Malaysia, Myanmar, Thailand, Indonesia, and the Philippines. They are also introduced in numerous other areas of the world as well. Mediterranean geckos are indigenous to the Mediterranean region, including Portugal, Spain, France, Italy, Israel, Albania, and Greece, to Malta, Macedonia, coastal Croatia, the Czech Republic, and many other localities within the Mediterranean. Within this range, house and Mediterranean geckos occupy primarily arboreal to semi-arboreal environments, where they may be found in a wide variety of tropical to sub-tropical habitats, but most often in and near human habitations and suburban to even industrial and urban areas.

Origin/History

Hemidactylus spp. Oken, 1817. The 190 or so recognized species all have their own first describing authors and years attributed to them. The five most common and invasive Hemidactylus species are believed to be *H. brookii* Gray, 1845, *H. frenatus* Schlegel, 1836, *H. garnotii* Duméril and Bibron 1836, *H. mabouia* (Moreau de Jonnès, 1818), and *H. turcicus* (L, 1758) (Wetterings, Robbie and Kai C. Vetter). The Mediterranean gecko would spread readily and widely from its native range in the eastern Mediterranean region.

It is uncertain how the Mediterranean gecko first made its way to the United States. It was first reported in Key West, Florida in 1915. It is thought that they probably were stowaways on a ship from the Mediterranean area. Mediterranean geckos are quite common in the pet trade, which has no doubt led to its spread across the United States. Currently, this species has high numbers in Florida, and has established breeding populations all along Southern states (Texas Invasive Species Institute).

There are at least 18 species of nonnative geckos that have established populations in the United States. Although many of these species are known only in Florida, others are showing up with increasing regularity in multiple states. At the most extreme end is the Mediterranean House Gecko, which has established populations in at least 24 states in the continental US (GeckoWatch).

These geckos have long been highly adapted for living in close proximity to people, and would be highly opportunistic, which have contributed to their successful establishment in many parts of the world. They can disperse readily due to human activity, and females of at least some species are also able to either store sperm over long periods of time, or reproduce parthenogenically, which also contributed to their successful invasion.

Several different scientific publications and community science projects were then also formed to track the establishment and distribution of non-native Hemidactylus species (and other non-native gecko species) in the U.S. and elsewhere in the world in much more depth and detail.

Experience Level Required

Novice/Beginner.

Size

House and Mediterranean geckos are fairly small geckos which range from 3.0 to 6.0 inches as adults in total snout-to-tail length depending on the exact species. Maximum snout-to-vent length also varies depending upon the exact species, but ranges from 1.0 to 4.8 inches snout-to vent length (SVL).

Housing and Enclosure

Enclosure System: Primarily Arboreal. Housing must be sealed and escape proof, and the size of the enclosure recommended will depend on the age and size of the gecko. For hatchlings up to 6 months or so, a 5 gallon tall aquarium, terrarium, or similar enclosure is recommended. Once a gecko reaches or exceeds six months or so, a 10 to 20 gallon tall terrarium or enclosure should be used. House and Mediterranean geckos are arboreal, and height is more important than floor space. Provide plenty of live or artificial plants, branches, cork bark, or other furnishings for ample climbing and hiding opportunities. Substrates that retain and hold humidity well are recommended, and naturalistic substrates can include sphagnum moss and fir shavings, natural moss, or similar substrates. To maintain humidity and hydration, daily or regular misting is necessary. They will drink the condensation from the enclosure's furnishings and walls, and a small water dish can also be provided, and must be kept clean, but will usually be seldom used.

Temperature, Lighting, and Humidity

Ideal temperatures for house and Mediterranean geckos range from 80 to 85 degrees F ambient temperature and an 85 to 90 degree F basking spot. Nighttime temperatures can be allowed to drop to between 70 to 75 degrees F. These geckos have fairly simple and undemanding heating and lighting requirements in captivity, and do not require additional UVA/UVB lighting, although providing it in moderated amounts can be greatly beneficial for their health, immune system, and overall wellness. For any supplemental heating that may be needed, use a low wattage incandescent or UVA/UVB bulb, radiant or ceramic heat emitter, or UTH (under tank heating element). Provide a daily photoperiod or light cycle of at least 10 to 12 hours. Spot clean the enclosure for urates, feces, or uneaten food at least twice per week. Be sure to periodically replace the substrate, clean, and disinfect the enclosure and its furnishings at minimum every 2 to 3 months. More specific lighting, heating, and humidity product suggestions and recommendations that can best suit one's needs, as well as those of one's animals can be given as well. Mediterranean and house geckos require moderate to high levels of relative humidity, which should be at, or within 70 to 90%, although this may vary somewhat depending on the exact species.

Feeding, Diet, and Nutrition

Insectivorous; In the wild, these geckos are insectivorous, and will eat a large array of insects and other small invertebrates. In captivity, feed these geckos a variety of appropriately sized feeder insects such as crickets, roaches, mealworms, superworms, and waxworms. Feeder insects should be gut-loaded in order to increase their optimal nutritional value. House and Mediterranean geckos also require additional calcium and vitamin D3 supplementation 1 to 2 times weekly or as otherwise directed for optimal health and development. This is in order to prevent Metabolic Bone Disease (MBD) and other growth and nutritional deficiencies. Their feeding frequency will depend on the age, size, and overall health of your animal. Use care as to not overfeed them, as obesity and other health related issues can become an issue. More specific dietary and supplementary product suggestions and recommendations that can best suit one's needs, as well as those of one's animals can be given as well.

Handling

House and Mediterranean geckos tend to be delicate, fast moving, and skittish species of geckos. Therefore, handling should be limited to periods whenever necessary. As with some other species of geckos, they may chip or vocalize in response to being handled or when threatened. Handle any of these geckos gently and deliberately but do not drop or injure the animal. As with many geckos and other lizards, they can also drop their tails when frightened or handled roughly. Take care to not grab your gecko by its tail or it may detach if your gecko perceives you as a predator or a threat.

****Also be sure to practice basic cleanliness and hygiene associated with proper husbandry after**

touching or handling any animals or animal enclosures to prevent the possibility of contracting salmonellosis or any other zoonotic pathogens**

Contact

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Disclaimer: Note that the information provided in these, or any care sheets, are not intended to be all-exhaustive, and further research and care should always be sought and provided when it comes to any species one may prospectively be interested in. These care sheets are also not intended to serve as substitutes for professional veterinary medical care and husbandry should any animal require it. Always seek proper and professional veterinary care for any animal should the need arise, and be prepared ahead of time for any and all husbandry costs and expenses that may occur with any animal beyond the initial purchase. Any animal owned is ultimately a matter of personal/individual care and responsibility. We cannot make any claims or guarantees regarding any information in this care sheet therein. This care sheet may be reprinted or redistributed only in its entirety.

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Appendix: Full List of Hemidactylus Species:

- Hemidactylus aaronbaueri-Aaron Bauer's House Gecko
- Hemidactylus acanthopholis
- Hemidactylus achaemenidicus
- Hemidactylus adensis
- Hemidactylus afarensis-Afar Gecko
- Hemidactylus agrius Vanzolini-Country Leaf-Toed Gecko
- Hemidactylus albituberculatus
- Hemidactylus albivertebralis
- Hemidactylus albofasciatus-White-Striped Viper Gecko
- Hemidactylus albopunctatus-White-Spotted Gecko, White-Spotted Leaf-Toed Gecko
- Hemidactylus alfarraji
- Hemidactylus alkiyumii
- Hemidactylus angulatus
- Hemidactylus ansorgii-Nigerian Leaf Toed Gecko
- Hemidactylus aporus-Annobon Leaf-Toed Gecko
- Hemidactylus aquilonius
- Hemidactylus arnoldi-Arnold's Leaf-Toed Gecko
- Hemidactylus asirensis
- Hemidactylus awashensis
- Hemidactylus barbierii
- Hemidactylus barodanus-Enigmatic Gecko
- Hemidactylus bavazzanoi-Somali Banded Gecko, Bavazzano's Gecko
- Hemidactylus bayonii-Barboza's Leaf-Toed Gecko
- Hemidactylus benguellensis-Benguela House Gecko
- Hemidactylus beninensis
- Hemidactylus biokoensis-Bioko Leaf-Toed Gecko
- Hemidactylus boavistensis-Boa Vista Leaf-Toed Gecko
- Hemidactylus bouvieri-Bouvier's Leaf-Toed Gecko, Cape Verde Leaf-Toed Gecko
- Hemidactylus bowringii-Oriental Leaf-Toed Gecko, Bowring's Gecko, Sikkimese Dark-Spotted Gecko, Asian Smooth Gecko
- Hemidactylus brasiliensis-Amaral's Brazilian Gecko

- Hemidactylus brookii-Brooke's House Gecko, Spotted House Gecko
- Hemidactylus chikhaldaraensis-Chikhaldara Brookish Gecko
- Hemidactylus chipkali-Central Indian Leaf-Toed Gecko
- Hemidactylus citernii-Speedy Leaf-Toed Gecko
- Hemidactylus coalescens
- Hemidactylus craspedotus-Mocquard's House Gecko, Frilled Gecko, Frilled House Gecko
- Hemidactylus curlei-Parker's Gecko, Northern Leaf-Toed Gecko
- Hemidactylus dawudazraqi
- Hemidactylus depressus-Sri Lankan Leaf-Nosed Gecko, Kandyan Gecko
- Hemidactylus dracaenacolus
- Hemidactylus echinus-Hedgehog Leaf-Toed Gecko
- Hemidactylus endophis
- Hemidactylus eniangii
- Hemidactylus fasciatus-Banded Leaf-Toed Gecko
- Hemidactylus festivus
- Hemidactylus flaviviridis-Yellow-Bellied Gecko, Northern House Gecko
- Hemidactylus forbesii-Socotra Leaf-Toed Gecko
- Hemidactylus foudaii
- Hemidactylus fragilis
- Hemidactylus frenatus-Common House Gecko, Asian House Gecko, Pacific House Gecko
- Hemidactylus funaiolii-Archer's Post Gecko, Kenya Leaf-Toed Gecko
- Hemidactylus garnotii-Indo-Pacific Gecko, Garnot's House Gecko, Fox Gecko, Assam Greyish-Brown Gecko
- Hemidactylus giganteus-Giant Leaf-Toed Gecko, Giant Southern Tree Gecko, Giant Gecko
- Hemidactylus gleadowi-Gleadow's House Gecko
- Hemidactylus gracilis-Graceful Leaf-Toed Gecko
- Hemidactylus granchii-Granchi's Leaf-Toed Gecko
- Hemidactylus graniticulus
- Hemidactylus granosus
- Hemidactylus granti-Grant's Leaf-Toed Gecko
- Hemidactylus greeffii-Greeff's Gecko, Greeff's Giant Gecko
- Hemidactylus gujaratensis-Gujarat Gecko
- Hemidactylus hajarensis
- Hemidactylus hemchandrai
- Hemidactylus homoeolepis-Arabian Leaf-Toed Gecko
- Hemidactylus hunae-Spotted Giant Gecko
- Hemidactylus imbricatus-Carrot-Tailed Viper Gecko
- Hemidactylus inexpectatus
- Hemidactylus inintellectus-Socotran Rock Gecko
- Hemidactylus isolepis-Scaly Leaf-Toed Gecko, Uniform-Scaled Gecko
- Hemidactylus ituriensis-Ituri Leaf-Toed Gecko
- Hemidactylus jubensis-Ethiopian Gecko, Mrioen Leaf-Toed Gecko
- Hemidactylus jumailiae
- Hemidactylus kamdemtohami-Kamdem Toham's Gecko
- Hemidactylus kangerensis
- Hemidactylus karenorum-Burmese Spotted Gecko, Burmese Leaf-Toed Gecko
- Hemidactylus klauberi
- Hemidactylus kolliensis-Kolli Rock Gecko
- Hemidactylus kundaensis
- Hemidactylus kushmorensis-Kushmore House Gecko
- Hemidactylus kyaboboensis

- Hemidactylus laevis-Common Leaf-Toed Gecko
- Hemidactylus lamaensis
- Hemidactylus lankae-Termite Hill Gecko, Sri Lankan Leaf-Toed Gecko
- Hemidactylus lanzai
- Hemidactylus laticaudatus-Andersson's Leaf-Toed Gecko
- Hemidactylus lavadeserticus-Syrian House Gecko
- Hemidactylus lemurinus-Dhofar Leaf-Toed Gecko, Oman Ghost Leaf-Toed Gecko
- Hemidactylus leschenaultia- Leschenault's Leaf-Toed Gecko
- Hemidactylus longicephalus
- Hemidactylus lopezjuradoi
- Hemidactylus luqueorum
- Hemidactylus mabouia- Tropical House Gecko, Afro-American House Gecko, Cosmopolitan House Gecko
- Hemidactylus macropholis-Boulenger's Gecko, Large-Scaled Leaf-Toed Gecko
- Hemidactylus maculatus-Spotted Leaf-Toed Gecko, Giant Spotted Gecko
- Hemidactylus makolowodei
- Hemidactylus malcolmsmithi-Malcolm's Bow-Fingered Gecko, Smith's Bent-Toed Gecko
- Hemidactylus mandebensis
- Hemidactylus masirahensis
- Hemidactylus matschiei-Togo Leaf-Toed Gecko
- Hemidactylus megalops-Parker's Leaf-Toed Gecko
- Hemidactylus mercatorius
- Hemidactylus mindiae-Mount Sinai Gecko
- Hemidactylus minutus
- Hemidactylus modestus-Moderate Leaf-Toed Gecko, Tana River Gecko
- Hemidactylus montanus-Mountain Leaf-toed Gecko
- Hemidactylus mrimaensis- Kaya Gecko
- Hemidactylus muriceus-Guinea Leaf-Toed Gecko
- Hemidactylus murrayi-Murray's House Gecko
- Hemidactylus newtoni-Newton's Leaf-Toed Gecko
- Hemidactylus nzingae-Queen Nzinga's Tropical Gecko
- Hemidactylus ophiolepis-Snake-Scaled Leaf-Toed Gecko
- Hemidactylus ophiolepoides-Lanza's Leaf-Toed Gecko
- Hemidactylus oxyrhinus-Sharp-Nosed Leaf-Toed Gecko
- Hemidactylus paaragowli-Travancore Rock Gecko
- Hemidactylus paivae-Paiva's Gecko
- Hemidactylus palaichthus-Antilles Leaf-Toed Gecko
- Hemidactylus parvimaculatus-Spotted House Gecko
- Hemidactylus pauciporosus
- Hemidactylus paucituberculatus
- Hemidactylus persicus-Persian Leaf-Toed Gecko, Persian Gecko
- Hemidactylus pieresii
- Hemidactylus platycephalus-Tree Gecko, Flat-Headed Leaf-Toed Gecko, Baobab gecko
- Hemidactylus platyurus-Flat-Tailed House Gecko, Frilled House Gecko, Asian House Gecko
- Hemidactylus porbandarensis
- Hemidactylus prashadi-Bombay Leaf-Toed Gecko, Prashad's Gecko
- Hemidactylus principensis
- Hemidactylus pseudomuriceus
- Hemidactylus pseudoromeshkanicus
- Hemidactylus puccinii-Zanzibar Leaf-Toed Gecko, Somali Plain Gecko
- Hemidactylus pumilio-Pygmy Leaf-Toed Gecko

- Hemidactylus reticulatus-Reticulated Leaf-Toed Gecko
- Hemidactylus richardsonii-Richardson's Leaf-Toed Gecko
- Hemidactylus robustus-Heyden's Gecko
- Hemidactylus romeshkanicus
- Hemidactylus ruspolii-Farm Leaf-Toed Gecko, Ruspoli's Gecko, Turnip-Tailed Black and Yellow Gecko
- Hemidactylus saba
- Hemidactylus sahgalii-Sahgal's Termite Hill Gecko
- Hemidactylus sankariensis-Sankari Brookish Gecko
- Hemidactylus sassanidianus
- Hemidactylus sataraensis-Satara Gecko
- Hemidactylus scabriceps-Scaly Gecko
- Hemidactylus shihraensis
- Hemidactylus sinaitus-Red Sea Gecko, Sinai Leaf-Toed Gecko
- Hemidactylus siva- Hampi Rock Gecko
- Hemidactylus smithi-Smith's Leaf-Toed Gecko
- Hemidactylus somalicus-Northern Somali Leaf-Toed Gecko
- Hemidactylus squamulatus-Tornier's Leaf-Toed Gecko, Nyika Gecko
- Hemidactylus stejnegeri-Stejneger's Leaf-Toed Gecko
- Hemidactylus subtridrus-Jerdon's Gecko, Madras Blotched Gecko
- Hemidactylus sushilduttai-Dutta Mahendragiri Gecko
- Hemidactylus tanganicus-Tanzanian Leaf-Toed Gecko, Tanzanian Diamond Gecko, Dutumi Gecko
- Hemidactylus tasmani-Tasmanian Leaf-Toed Gecko
- Hemidactylus taylori
- Hemidactylus tenkatei
- Hemidactylus thayene
- Hemidactylus treutleri-Treutler's Gecko
- Hemidactylus triedrus-Termite Hill Gecko, Dakota's Leaf-Toed Gecko, Blotched House Gecko
- Hemidactylus tropidolepis-Mocquard's Leaf-Toed Gecko, Ogaden Gecko
- Hemidactylus turcicus-Mediterranean House Gecko, Turkish Gecko
- Hemidactylus ulii
- Hemidactylus vanam-Megamalai Rock Gecko
- Hemidactylus varadgirii-Giri's Brookish Gecko, Amboli Brookish Gecko
- Hemidactylus vietnamensis-Vietnam Leaf-Toed Gecko, Vietnam House Gecko
- Hemidactylus vijayraghavani
- Hemidactylus whitakeri-Whitaker's Termite Hill Gecko
- Hemidactylus yajurvedi-Kanker Rock Gecko
- Hemidactylus yerburyi-Yerbury's Gecko, Yerburi's Leaf-Toed Gecko