

FACTSHEET

MONITOR LIZARD

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Monitor lizards belong to the genus *Varanus*. Taxonomically, it is placed in the class Reptilia, order Sauria, and family Varanidae. The common name “Monitor” comes from the Latin noun “*Monitio*” or a “warner”, the Scientific generic name *Varanus* derives from an Arabic word *Waran*, which means “to monitor”. The name is inspired by the behaviour of several monitor species to stand on their hind legs to survey the surroundings.

- 79 species of monitor lizards are found in the world.
- India is home to four species—Bengal Monitor *Varanus bengalensis*, Common Water Monitor *Varanus salvator*, Yellow Monitor *Varanus flavescens*, and Desert Monitor *Varanus griseus*.

“The Common Water Monitor is considered the second largest lizard in the world after the Komodo Dragon *Varanus komodoensis*.”

“Monitor lizards have superb vision and they can discern objects at a great distance.”

“Monitor lizards are egg-laying (oviparous) animals and lay up to 30 eggs.”

#DYK

“The Desert Monitor is the smallest monitor lizard in India and is shorter than 1 m in length.”

“After the Giant Tortoise *Chelonoidis nigra*, monitor lizards are considered the most intelligent reptile in the world and can recognise their keepers in captivity.”




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ECOLOGICAL ROLE:

Monitor lizards perform an essential function in agricultural and forest ecosystems by feasting on insects, rodents, bird eggs, snakes, fish, and crabs, thereby regulating their populations. In some regions, they are also a source of food for other predators.

Monitor lizards are also scavengers and play a significant role in biomass decomposition and recycling. They clear carrion and help in controlling the spread of disease.

SIZE, HABITAT, DISTRIBUTION AND POPULATION STATUS:

| Species | Average size (snout to tail) | Habitat | Distribution | Population trend |
|-----------------------|------------------------------|--|--|---|
| Bengal Monitor | 61 - 175 cm | Forests, shrubland, wetlands (inland waters), rocky areas, desert, agricultural lands. | Widespread throughout India. |  |
| Water Monitor | 250 cm | Semi-aquatic species inhabiting forests, shrubland, mangrove vegetation and swamps, wetlands, agricultural fields. | Andaman and Nicobar Islands, Andhra Pradesh, Assam, Jharkhand, Manipur, Mizoram, Odisha, Tripura, West Bengal. | Unknown |
| Yellow Monitor | 95.2 cm | Marshy areas of the Indus and Ganges floodplains. | Assam, Bihar, Himachal Pradesh, Orissa, Punjab, Uttar Pradesh, West Bengal. | Unknown |
| Desert Monitor | Less than 100 cm | Hilly terrains, and semi-arid areas. | Delhi, Gujarat, Haryana, Rajasthan, Uttar Pradesh. | Unknown |

CONSERVATION STATUS:

| Species | Wildlife (Protection) Act, 1972 | Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) | International Union for Conservation of Nature (IUCN) Red List |
|-----------------------|---------------------------------|---|--|
| Bengal Monitor | Schedule I | Appendix I | Least Concern |
| Water Monitor | Schedule I | Appendix II | Least Concern |
| Yellow Monitor | Schedule I | Appendix I | Least Concern |
| Desert Monitor | Schedule I | Appendix I | Not Assessed |

MONITOR LIZARDS IN PERIL:

HABITAT LOSS AND DESTRUCTION: Large-scale habitat degradation due to urbanisation, and rapid expansion of agricultural lands, pollution, overfishing, and infringement of forests and water bodies.

DIRECT PERSECUTION: Human-wildlife conflicts and retaliatory killings pose a direct threat to the survival of monitor lizard species.

TRAPPING AND HUNTING FOR ILLEGAL WILDLIFE TRADE: The demand for “*Hatha Jodi*” the root of the Tiger's Claw *Martynia annua*, a plant with diverse traditional uses in Ayurveda medicine, is one of the major drivers of poaching and illegal trade of monitor lizards in India today. Structurally, *Hatha Jodi* appears similar to the dried copulatory organs of monitor lizards—the male's hemipenes. As a consequence, the reproductive organs of monitor lizards are deliberately traded as alleged *Hatha Jodi*. In India, the *Hatha Jodi*-related trade impacts populations of *V. bengalensis*, followed by *V. flavescens* and *V. salvator*.

Monitor lizards are also extensively poached for their meat which is considered a delicacy and also believed to have medicinal properties. The meat of the Bengal Monitor is regarded as a delicacy and an aphrodisiac in southern, central and northwestern India. Products obtained from the species are used to treat various diseases, including asthma, haemorrhoids, rheumatism, and arthritis, also burns, spider and snake bites, while the skin is extensively used to manufacture expensive leather goods and products. In Assam, both the Bengal Monitor and Common Water Monitor are poached for traditional medicinal practices, and for their meat and oil.



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Globally, monitor lizards are amongst the most popular reptile groups in international pet trade markets. This is attributed to their large size, exquisite appearance, and intelligence.

The population of Desert Monitors in the Thar Desert of Rajasthan is reported to be rapidly declining due to poaching for their skins. In the Sundarbans, monitor lizards are commercially exploited for their skins, eggs, and meat which are consumed by fishing communities. In Goa, the skin of monitor lizards was once coveted for making the “*Ghumat*”—a traditional percussion musical instrument made up of an earthen vessel and a monitor lizard skin. However, production of *Ghumats* with monitor lizard skins was banned by the state forest department.

SECURING THE FUTURE OF MONITOR LIZARDS IN INDIA:



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- Illegal trade to meet the demand for skin, and consumption of monitor lizard meat is a current challenge and therefore consumer-centric awareness campaigns will be crucial.
- The ongoing demand for *Hatha Jodi* and the myths and misconceptions associated with its use clearly highlight the need to develop a robust enforcement strategy to protect the species from poaching and trafficking. Further, the demand for *Hatha Jodi* has also been observed online, which underlines the significance of employing effective measures to combat wildlife cybercrime.
- Loss of habitat and expansion of human settlements have increased the pressure on monitor lizard populations in India, hence the need for habitat restoration programmes in their confined geographical regions.
- Populations of Common Water Monitor, a semi-aquatic species primarily associated with water bodies such as rivers and lakes, are affected by water pollution. Stringent regulations to curb pollution and the discharge of untreated sewage into aquatic ecosystems must be enforced.



TRAFFIC's India Office
c/o WWF-India Secretariat; 172-B, Lodi Estate
New Delhi-110003
Email: trafficind@wwfindia.net
Website: www.traffic.org & www.trafficindia.org
Tel: 011-41504786

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the wildlife trade monitoring network