Entomology, Ornithology & Herpetology: Current Research

OPEN ACCESS Freely available online

Short Communication

Morphology and Physiology of Reptiles

Peernel Zwart*

Department of Biology, University of California, California, USA

DESCRIPTION

Reptiles belong to the class of vertebrates made up mostly of turtles, snakes, crocodilians, and lizards. These animals are most easily identified by their scaly, dry skin. Practically all reptiles are cold-blooded, and most of them lay eggs on the boa constrictor and give birth to live young. Reptiles are air-breathing vertebrates that have internal fertilization, amniotic development, and having epidermal scales covering their bodies. The major groups of living reptiles-the tuatara (order Rhynchocephalia), turtles (order Testudines), snakes and lizards (order Squamata), and crocodiles (order Crocodylia, or Crocodilia). Birds that belong to the class Aves share a common ancestor with crocodiles in subclass Archosauria and are exactly one family of reptiles, but they are treated distinctly as birds [1].

Morphology and physiology

Most of reptiles have a constant external covering of epidermal scales on their skin. Reptile scales contain a distinctive type of hormone keratin which is called beta keratin; the interscalar skin and scales also contain alpha keratin, which is a feature common with other vertebrates. Keratin is the chief component of reptilian scales. Scales may be very small, as in microscopic tubercular scales of dwarf geckos (as in microscopic tubercular scales of dwarf geckos belonging to the genus *Sphaerodactylus*), or relatively large, as in the body scales of snake sand lizards. The largest scales are the scutes covering the plates of a crocodile or on the shell of a turtle[2]. Other characteristics that can be used to identify the Reptilia class include the following: The occipital condyle, which has a protuberance where the skull attaches to the first vertebra, is single. The cervical vertebrae in reptiles have midventral tips, and the intercentrum of the second cervical vertebra fuses to the axis in adults. Taxa with well-developed limbs have 2-4 sacral vertebrae. The lower jaw of reptiles is composed of several bones, but there is a lack of an anterior coronoid bone [3-4]. The ear of a reptile contains a stapes, the single auditory bone that communicates sound vibrations from the eardrum (tympanum) to the inner ear. Reproduction is internal, and sperm may be dropped by copulation or over the apposition of cloacae. Some of the groups practice parthenogenesis for asexual reproduction. Embryos may be retained in the female's oviducts during development, and embryos of some species may be connected to the mother by a placenta. However, growth in most species is external, with embryos enclosed in shelled eggs. Each embryo is enclosed in an amnion, a fluid-filled sac made of membranous membranes. Reptiles have large-volume lungs that are used for vocalization, display, and buoyancy in addition to gas exchange. The digestive tract is smaller than that of mammals and can differ from the digestive tract of carnivores to the caecum and larger colons of herbivores. All snakes come under the carnivorous category [5].

CONCLUSION

Most reptiles have a chosen optimum temperature zone. Reptiles in detention frequently are maintained at suboptimal temperatures, which have effects on a cooperated immune system. A reptile that is kept at its preferred optimum temperature and obtains proper nutrition is generally a healthy reptile. The entire physiology and immune system of reptiles is temperature-dependent and works optimally at this peak zone.

REFERENCES

1. Ezcurra MD, Scheyer TM, Butler RJ. The origin and early evolution of Sauria: reassessing the Permian saurian fossil record and the timing of the crocodile-lizard divergence. PloS one. 2014 ;9(2):e89165.
2. Watson DM. On Millerosaurus and the early history of the sauropsid reptiles. Philosophical Transactions of the Royal Society of London. Biol Sci. 1957;240(673):325-398.
3. Tsuji LA, Müller J. Assembling the history of the Parareptilia: Phylogeny, diversification, and a new definition of the clade. Foss Rec. 2009;12(1):71-81.
4. Brysse K. From weird wonders to stem lineages: The second reclassification of the Burgess Shale fauna. Stud Hist Philos Sci C. 2008;39(3):298-313.
5. Modesto SP, Anderson JS. The phylogenetic definition of Reptilia. Syst Biol. 2004;53(5):815-821.

Correspondence to: Peernel Zwart, Department of Biology, University of California, California, USA, E-mail: zwartpeer56@stonybrook.edu

Received: 04-Jul-2022, Manuscript No. EOHCR-22-17353; **Editor assigned:** 08- Jul -2022, PreQC No. EOHCR-22-17353 (PQ); **Reviewed:** 21-Jul-2022, QC No. EOHCR-22-17353; **Revised:** 27- Jul -2022, Manuscript No. EOHCR-22-17353 (R);**Published:** 04-Aug-2022, DOI: 10.35248/2161-0983.22.11.286

Citation: Zwart P (2022) Morphology and Physiology of Reptiles. Entomol Ornithol Herpetol. 11: 286.