

CHARACTERISTICS OF MAMMALS

The group of mammals ranges from the pigmy shrew with a mass of 2,5g to the blue whale with a mass of 128 metric ton. Mammals may be terrestrial, aquatic (porpoises) or aerial (bats). Man is also a mammal and is dependent (directly or indirectly) on mammals for his food, clothing and many other services from chemicals to companionship. It is therefore of interest to know what a mammal is.

It is important to use all the characteristics listed below and not just one when determining whether an animal is a mammal or not. For example, it would be quite wrong to say that the duck-billed platypus (which is a mammal) is a bird just because it lays eggs and has a duck-like bill. For apart from these peculiarities it possesses all other qualities of a mammal.

1. Mammals are the vertebrate animals which produce milk to feed their young. All mammals suckle their young by means of mammary (milk) glands, the ducts of these are united to open on nipples. The exception being the Monotremes viz. the duck-billed platypus and spiny ant-eater which produce milk from specialized sweat glands. The ducts of these are united to open on nipples. The milk seeps from pore-like holes on the abdomen and is lapped up by the young.

2. All mammals have hair. The degree of coverage varies e.g. in some whales, hair is nearly absent in the adult, except for a few about the mouth; in other it is lacking entirely in the adult, although it may have appeared briefly at some stage of prenatal development.

Furthermore hair can be of variable thickness and length. For example the "whiskers" of a cat are vibrissae which arise from follicles which contain erectile tissue; while body hairs arise from follicles without erectile tissue.

Examples of the latter are the spines of a porcupine, the bristles of a horse's mane, awns of a man's beard, wool of a sheep, fur of a chinchilla, and the velli of an embryo or newly born mammal.

3. Mammals have sweat glands. Exceptions are the whale and pangolin. Sweat glands are distributed in varying density e.g. the Negroids in the tropics have more sweat glands than the Caucasoid humans. In cats and mice the sweat glands are situated under the soles of the feet, in the bats they are on the side of the head, in deer at the base of the tail etc. Coloured sweat occurs in some mammals, e.g. hippos and kangaroos have a reddish sweat, while vervet monkeys' sweat is blueish.

4. The young of mammals are born alive. The Monotremes however, are egg-laying mammals. The spiny ant-eater transfers its eggs to a marsupial-like pouch, these eggs develop at the breeding sea-



Die Voëlbekdier (Platypus) is behaard, leef in riviere van Tasmanië en Australië, is ongeveer 2 voet lank, swem met gewebde pote, besit aan die agterpote van mannetjies skerp spore wat met gifkliere verbind is en leef hoofsaaklik van mossels en klein waterdiertjies. Die wyfie lê haar twee eiers in 'n gat in 'n rivierwal.



Die mieregel (Echidna) is 'n landdier, het 'n huidbedekking van hare en stekels, 'n puntige snuit, sterk kloue en leef van miere wat met die pote oopgegrawe en met behulp van die lang snuit en tong gevang word. Die wyfie lê slegs een eier wat in 'n buidelsak uitgebroei word.

son. The platypus makes a nest in a burrow for her two or three eggs and remains with them continuously until after hatching.

5. The mature red blood corpuscles of mammals do not have a nucleus and are round. However, in camels and llamas the corpuscles are oval.

6. Mammals have a muscular diaphragm which separates the chest cavity from the abdominal cavity. This diaphragm is important for respiration. Birds also

have a diaphragm but this is not muscular.

7. The cerebral hemispheres of a mammal's brain are highly developed in comparison to other vertebrates.

8. In mammals each half of the lower jaw consists of a single bone called the dentary.

9. The jaw articulation of a mammal is between the squamosal and the dentary.

10. Mammals have three ossicles (bones) in the middle ear viz. hammer, anvil and the stirrup.



Die geelvrugtevlermuis is een van die soogdiere wat kan vlieg. Dit het 'n vlerkspan van 70 cm. en verkies 'n meer gematigde klimaat as dié van die Vrystaat. Sporadies word enkeles wel hier aangetref en verwek dan groot opspraak aangesien hulle vir vampiere, dit wil sê bloedsuiers aangesien word. Vampiere kom egter slegs in Suid-Amerika voor en nie op die Afrikaanse Vasteland nie.

(Foto: Die Volksblad)