

An online resource devoted to North American insects, spiders and their kin, offering identification, images, and information.

Both centipedes and millipedes have segmented bodies and belong to the group Myriapoda. Both breathe through spiracles and have no direct copulatory organs. However, many differences exist between centipedes and millipedes. Centipedes are terrestrial arthropods belonging to Class Chilopoda. Centipedes are flexible, dorsoventrally flattened arthropods. Centipedes have one pair of legs per body segment, while millipedes have two pairs. While most centipedes are known for their speed, millipedes move slowly and burrow. Differences in Diet Centipedes and millipedes also vary in diet: Centipedes are carnivorous and kill their prey by injecting them with venom. Millipedes feed primarily on decaying organic matter and they may eat the roots and leaves of seedling plants. Millipedes are ecologically esteemed as agents of microbial decomposition and soil nutrient cycles. Centipedes have maxillipeds with which they attack prey. In the absence of stinging structures, millipedes employ defensive secretions in order to protect themselves from predators. These secretions are produced by their segmental defensive glands. A millipede will also curl its body as a defense mechanism. While centipedes sometimes bite humans, it is rare that their venom will produce a severe reaction. However, small children and those with other insect allergies should be watched carefully following a centipede bite. In the event of bite-related medical concerns, a medical professional should be contacted at once. Although they resemble insects, centipedes and millipedes both are classified as arthropods. Insects have three body segments. Centipedes and millipedes have many segments. Insects have three pair of legs but centipedes have one pair of legs on each body segment. Millipedes have two pair of legs per body segment. If you have problems with millipedes or centipedes, consult a pest control professional.

Chapter 2 : Millipedes vs. Centipedes: What's the Difference?

Centipedes (from Latin prefix centi-, "hundred", and pes, pedis, "foot") are arthropods belonging to the class Chilopoda of the subphylum Myriapoda, an arthropod group which also includes Millipedes and other multi-legged creatures.

These distinctive creatures have several adaptations that help them thrive in nature, including poison claws, numerous legs and a nocturnal lifestyle. Additionally, centipedes are able to live in a wide variety of environments and can grow to large sizes because of their evolutionary success. The Poisonous Pinch All centipedes have one thing in common: No other creatures have these distinctive adaptations. They operate as pinchers that grab prey and inject it with venom that passes from glands into a tube in each of the legs. These forcipules can take down many types of prey, including spiders, insects. Centipede Venom Centipede venom contains a number of different chemicals, including serotonin, histamines, and acetylcholine. In humans, the histamines can cause an allergic reaction, particularly in people who have sensitivity to the venom of insects. The serotonin causes intense pain, particularly when the venom comes from one of the larger centipede species, such as the Amazonian giant centipede, which can be over 12 inches long. This venom serves as another adaptation that allows centipedes to easily kill prey larger than itself. The Amazonian giant centipede, for example, eats frogs, mice and bats. The real advantage of having so many legs is speed. Centipedes travel fast, so they are hard to see and even more difficult to catch. This speed means successful predators must be faster or smarter if they want to use centipedes as food sources. Adaptability to Diverse Environments Centipedes have adapted successfully to a wide range of environments. For example, the giant desert centipede *Scolopendra heros* and the common desert centipede *Scolopendra polymorpha* live in the desert. They hide from the heat and scorching sun during the day then hunt for food at night. Other centipedes, such as the wood centipede *Lithobius forficatus* have adapted to cold weather by developing a tolerance to freezing. The study "Freeze Tolerance Adaptations in the Centipede, *Lithobius Forficatus*" published in the April Journal of Experimental Zoology found that wood centipedes could inoculate themselves against freezing to survive the winter. They tend to have simple eyes or no eyes at all. Even the species that have compound eyes do not have very good vision. Instead, centipedes rely on their antennae to sense potential prey. The sensitivity of their antennae is more effective than their eyes would be at locating food in these dark environments, and this adaptation allows them to hunt for prey without exposing themselves to their own predators.

Chapter 3 : Class Chilopoda - Centipedes - blog.quintoapp.com

Centipedes will moult several times before reaching sexual maturity. Feeding Centipedes are predatory and will kill and consume a variety of other invertebrates such as spiders, molluscs, many insects, slaters and other centipedes.

Centipede segments possess one pair or two legs that, except for the last pair, arise laterally, are clearly visible along the sides of the body, and function in locomotion. The ultimate or last legs extend backwards beyond the caudal extremity of the body and are not used for locomotion; they may be modified for sensory, defensive, or prey-capture functions. Diversity and habits The Chilopoda is not as diverse and speciose a taxon as the Diplopoda. The Chilopoda also is not as ancient a class, as its fossil history dates back to the late Silurian period of the Paleozoic era, ca. Centipedes occur sporadically north of the Arctic Circle, inhabit all subarctic environments, and are abundant in xeric desert biotopes, where they are one of the most commonly recognized terrestrial invertebrates. Four of the five orders contain agile, fast-moving forms that are adapted for speed; the exception is the Geophilomorpha, whose species move slowly and burrow in the substrate in a manner similar to earthworms, by elongating and contracting their bodies. A few species also produce defensive secretions, and larger ones appear to have glands in their legs, as merely walking on skin can produce inflamed puncture wounds. Centipedes exhibit two basic body forms and lack the great array of ornamentations that exist in the Diplopoda. The centipedes that are adapted for speed encounter a difficulty, because any long, slender object that moves swiftly forward generates side-to-side undulations that counter this motion like the swaying of a train, so centipedes have developed anatomical modifications that dampen or reduce the undulations. These glands are thought to function as osmoregulatory organs, excreting water under wet conditions and absorbing it in dry environments. Faunal overview and taxonomic characters In the Scutigermomorpha, the long-legged and swift-moving European species, *Scutigera coleoptrata*, has been widely introduced into North America and is often encountered in houses in cool, moist places like drains, sinks, bathtubs, and cellars. Additionally, five nominal species have been proposed for forms in Texas and Arizona: Shelley surveyed the Scolopendromorpha across the continent and documented an indigenous fauna of eight genera and 21 species. North America is thus the only continent in which this order has been thoroughly studied, and the Scolopendromorpha is one of the few invertebrate orders to have been surveyed across it. The higher taxa families and orders are distinguished primarily by the number of segments and legs, the lengths of the appendages, the presence or absence of segmental modifications, the profile and general body form, and the configuration of the head. Determinations of centipede genera and species are more difficult than in millipedes because they lack the all important gonopods and telopods found in chilognath Diplopoda. Many centipede genera and species are superficially similar such that only an experienced taxonomist can distinguish one from another. Adults possess 15 pairs of very long legs that become progressively longer caudally, and the antennae are very long and whip-like, consisting of two basal articles and a long flagellum with hundreds of very short articles. They are extremely fast, agile, and delicate centipedes that are difficult to catch and collect intact; the legs are readily autotomized, and few museum specimens possess all 15 pairs in good condition. The subclass Pleurostigmophora The remaining four orders, containing the vast majority of species, belong to the subclass Pleurostigmophora, which comprises dorsoventrally flattened centipedes in which the spiracles are located laterally and the appendages are not prolonged; eyes, when they exist, are simple ocelli on both sides of the head. According to Lewis a, brooding occurs in the anamorphic Craterostigmomorpha, but little is known about life history and development in this order. Lithobiomorpha, strong tergite heteronomy different sized tergites The Lithobiomorpha comprises short-bodied forms with 15 pairs of legs and segments in adults, and 7 rarely 6 or 8 in hatchlings. They exhibit strong tergite heteronomy, as tergites 1, 3, 5, 7, 8, 10, 12, and 14 are much longer than those of the other segments. Lithobiomorphs typically possess ocelli, but a few, mostly cavernicolous species, have lost them. There are 95 genera, and ca. The order comprises only one family, one genus, and one described species *Craterostigma tasmanianus*; there is at most only one other species, currently undescribed, as some specialists believe the form in New Zealand is specifically distinct. Craterostigmomorphs have 15 pairs of legs and sterna, but there appear to be 21 tergites plus a terminal

structure because tergites 3, 5, 7, 8, 10, and 12 are divided. The terminal structure is bizarre, as it consists of two valves that are fused dorsally but meet in a longitudinal slit ventrally; its function is unknown. Scolopendromorpha, the most recognized body form The Scolopendromorpha contains the most readily recognized chilopods and exhibit the body form that most people envision when centipedes are mentioned. There are three families " Scolopendridae, Scolopocryptopidae, and Cryptopidae " based in part on the presence Scolopendridae or absence Scolopocryptopidae and Cryptopidae of four ocelli on each side of the cephalic plate and the number of segments 21 in Scolopendridae [except for Scolopendropsis, which has 23] and Cryptopidae, and 23 in Scolopocryptopidae. The last legs are larger than the preceding pairs and appear to function in part as prehensile appendages to hold or pinch prey; in the Scolopendridae the prefemora the second leg articles possess variable numbers of ventral spines. Some scolopendromorphs are anatomically and behaviorally intriguing, for example species of the African genus *Alipes*, which have large, leaf-like terminal legs that vibrate rapidly from side to side when disturbed to produce a rustling or fluttering sound. Another is *Arrhabdotus octosulcatus*, a slow-moving, arboreal species in the rain forests of Borneo with very short legs, whose tergites possess seven strong longitudinal ridges one of the few ornamented centipedes that impart exceptional rigidity to the body Lewis a, *Arrhabdotus octosulcatus* clearly occupies a different ecological niche from other scolopendromorphs and hence differs in basic anatomical traits; on first glance, it more closely resembles a millipede of the order Polydesmida than a scolopendromorph Lewis b. *Scolopendra subspinipes*, native to southeast Asia but introduced into many areas of the world, particularly oceanic islands, can swim, a beneficial usage of undulations that is advantageous for rain forest species that are likely to be immersed during monsoonal floods. The top of the head and tergites, except for the last three, protrude from the water, and the centipede swims in a serpentine manner with the legs held against the sides of the body Lewis a, b. Geophilomorpha, the most diverse order The final centipede order, Geophilomorpha, is unique in several ways. It is the only order whose species are not adapted for speed and instead burrow slowly in the substrate; it is the only one in which species reach the magic figure of legs the number in this order, always an odd number of pairs, ranging from 54 [27 pairs] to [pairs] ; and it is also the only order with appreciable diversity, as there are currently 14 component families, genera, and ca. Eyes are always absent, and the head is usually lenticular in shape, though it can be elongated and rectangular, as in the Mecistocephalidae. The last pair of legs typically lies along the longitudinal body axis; and the inflated coxae bear variable numbers of pores. Geophilomorphs vary from around 5 to mm 0. They occur natively on all the inhabited continents and some species have been introduced to oceanic islands. They range from sea level to high elevations in the Andes and Himalaya Mountains. Several species inhabit littoral zones of sea-shores, a difficult environment to adapt to because of the high salinities. However, unlike scorpions and spiders, there are no really dangerous, deadly centipedes, and there are no confirmed human fatalities. I was once bitten on a finger by an inch long individual of *Scolopocryptops sexspinosus*, and the digit swelled up and throbbled for about an hour, thus being similar to a wasp sting. In the southeastern US, *Hemiscolopendra marginata*, which can grow to 75 mm 3 in. Large individuals roamed freely around military installations, falling into foxholes and entering latrine shelters and tents, where they would crawl into blankets on beds. Many soldiers were bitten and experienced instant, fiery pain; medical staff were frequently called to treat centipede bites, and an ingenious medic conceived of injecting localized dental anesthetic in the vicinities of bites, which afforded quick relief Remington Thus, while there are no dangerous, deadly centipedes, the bite of large ones can cause severe pain and discomfort, to the point that persons living in tropical areas should be suitably cautious. Collectors should always pick up even moderate-sized species with forceps, never the hands, and because of their flexibility, specimens should always be grasped behind the head so as to be able to control the biting end of the body. Classification The Chilopoda comprises 2 subclasses, 5 orders, and 23 families. Eleven families occur in the US and Canada, but the number of genera and species is uncertain because the composition of the two most speciose orders, Lithobiomorpha and Geophilomorpha, is unknown as they have never been comprehensively investigated. In the currently accepted classification, subfamilies are provided for Scolopendromorpha, where I have more taxonomic experience.

Chapter 4 : How Do Centipedes Reproduce? | Animals - blog.quintoapp.com

Centipedes belong to the phylum Arthropoda and share all the characteristic arthropod traits with their cousins, the insects, and spiders. But beyond that, centipedes are in a class by themselves - the class Chilopoda.

Underside of *Scolopendra cingulata*, showing the forcipules Close-up of the tail-like rear pair of legs of a centipede Centipedes have a rounded or flattened head, bearing a pair of antennae at the forward margin. They have a pair of elongated mandibles, and two pairs of maxillae. The first pair of maxillae form the lower lip, and bear short palps. The first pair of limbs stretch forward from the body to cover the remainder of the mouth. These limbs, or maxillipeds, end in sharp claws and include venom glands that help the animal to kill or paralyze its prey. However, these eyes are only capable of discerning light and dark, and have no true vision. In some species, the first pair of legs at the head end of the centipede acts as sense organs similar to antennae, but unlike the antennae of most other animals, theirs point backwards. These are located at the base of the antennae, and consist of a disc-like structure with a central pore surrounded by sensory cells. They are probably used for sensing vibrations, and may even provide a sense of hearing. The forcipules are modifications of the first pair of legs, forming a pincer-like appendage always found just behind the head. Venom glands run through a tube almost to the tip of each forcipule. Most of the segments bear a single pair of legs, with the maxillipeds projecting forward from the first body segment, and the final two segments being small and legless. Each pair of legs is slightly longer than the pair immediately in front of it, ensuring that they do not overlap, so reducing the chance that they will collide with each other while moving swiftly. In extreme cases, the last pair of legs may be twice the length of the first pair. The final segment bears a telson and includes the openings of the reproductive organs. The digestive tract forms a simple tube, with digestive glands attached to the mouthparts. Like insects, centipedes breathe through a tracheal system, typically with a single opening, or spiracle on each body segment. They excrete waste through a single pair of malpighian tubules. It is known to eat lizards, frogs, birds, mice, and even bats, catching them in midflight, [8] as well as rodents and spiders. Lifecycle[edit] A centipede protecting her eggmass Centipede reproduction does not involve copulation. Males deposit a spermatophore for the female to take up. In one clade, this spermatophore is deposited in a web, and the male undertakes a courtship dance to encourage the female to engulf his sperm. In other cases, the males just leave them for the females to find. In temperate areas, egg laying occurs in spring and summer, but in subtropical and tropical areas, little seasonality to centipede breeding is apparent. A few species of parthenogenetic centipedes are known. The number of eggs laid ranges from about 10 to Time of development of the embryo to hatching is highly variable and may take from one to a few months. Time of development to reproductive period is highly variable within and among species. For example, it can take 3 years for *S.* In addition, centipedes are relatively long-lived when compared to insects. For example, the European *Lithobius forficatus* may live for 5 to 6 years, [9] and the wide-ranging *Scolopendra subspinipes* can live for over 10 years. The eggs, 15 to 60 in number, are laid in a nest in the soil or in rotten wood. The female stays with the eggs, guarding and licking them to protect them from fungi. The female in some species stays with the young after they have hatched, guarding them until they are ready to leave. If disturbed, the female either abandons the eggs or eats them; abandoned eggs tend to fall prey to fungi rapidly. Some species of *Scolopendromorpha* are matrophagic, meaning the offspring eat their mother. Little is known of the life history of the *Craterostigmomorpha*. In the primitive condition, exhibited by the *Lithobiomorpha*, *Scutigermomorpha*, and *Craterostigmomorpha*, development is anamorphic: For example, *Scutigera coleoptrata*, the American house centipede, hatches with only four pairs of legs and in successive moults has 5, 7, 9, 11, 15, 15, 15 and 15 before becoming a sexually mature adult. Life stages with fewer than 15 pairs of legs are called larval stadia about five stages. After the full complement of legs is achieved, the now postlarval stadia about five stages develop gonopods, sensory pores, more antennal segments, and more ocelli. All mature lithobiomorph centipedes have 15 leg-bearing segments. The clade *Epimorpha*, consisting of the orders *Geophilomorpha* and *Scolopendromorpha*, exhibits epimorphy: This clade contains the longest centipedes; the maximum number of thoracic segments may also vary intraspecifically, often on a geographical basis; in most cases, females bear

more legs than males. The number of leg-bearing segments varies widely, from 15 to , but the developmental mode of their creation means they are always added in pairs—hence the total number of pairs is always odd. A centipede *Scolopendra cingulata* being eaten by a European roller Centipede seen on vegetation at Agumbe , Karnataka , India Centipedes are predominantly generalist predators, which means they have adapted to eat a variety of different available prey. Examination of centipede gut contents suggests that plant material is an unimportant part of their diets, although centipedes have been observed to eat vegetable matter when starved during laboratory experiments. Studies on their activity rhythms confirm this, although a few observations of centipedes active during the day have been made, and one species, *Strigamia chinophila*, is diurnal. What centipedes actually eat is not well known because of their cryptic lifestyles and thorough mastication of food. Laboratory feeding trials support that they will feed as generalists, taking almost anything that is soft-bodied and in a reasonable size range. Earthworms may provide the bulk of diets for geophilomorphs, since they burrow through the soil and earthworm bodies would be easily pierced by their venom claws. Geophilomorphs probably cannot subdue earthworms larger than themselves, so smaller earthworms may be a substantial proportion of their diet. They have been observed eating reptiles, amphibians, small mammals, bats, and birds. Springtails may provide a large proportion of lithobiomorph diets. Little is known about scutigermorph or craterostigmomorph diets. All centipedes are potential intraguild predators. Centipedes and spiders may frequently prey on one another. Geophilomorph centipedes can secrete sticky substances that generate toxic hydrogen cyanide and benzoic acid from microscopic glands on their undersides. Similarly, lithobiomorph centipedes secrete a sticky substance from glands in the rear-most two pairs of legs. Water loss is a result of centipedes lacking a waxy covering of their exoskeleton and excreting waste nitrogen as ammonia , which requires extra water. Centipedes deal with water loss through a variety of adaptations. Geophilomorphs lose water less rapidly than lithobiomorphs, though they have a greater surface area to volume ratio. This may be because geophilomorphs have a more heavily sclerotized pleural membrane. Spiracle shape, size, and ability to constrict also have an influence on rate of water loss. In addition, the number and size of coxal pores may be variables affecting centipede water balance. Centipedes live in many different habitat types—forest, savannah , prairie, and desert, to name a few. Some geophilomorphs are adapted to littoral habitats, where they feed on barnacles. Small geophilomorphs attain highest densities, followed by small lithobiomorphs. One study of scolopendromorphs records *Scolopendra morsitans* in a Nigerian savannah at a density of 0. This custom is allegedly part of the traditional Chinese medicine. Said to have medicinal properties and to be reinvigorating, [21] the liquor with the centipede submerged in it is consumed as a special drink. Centipede bite Some species of centipedes can be hazardous to humans because of their bite. Although a bite to an adult human is usually very painful and may cause severe swelling, chills, fever , and weakness, it is unlikely to be fatal. Bites can be dangerous to small children and those with allergies to bee stings. The venomous bite of larger centipedes can induce anaphylactic shock in such people. Smaller centipedes are generally incapable of piercing human skin.

Chapter 5 : Centipede - Wikipedia

Anatomy centipedes have a segmented body and paired, jointed appendages on most segments millipedes have a cylindrical body with two pairs of legs on most segments, while centipedes are dorso-ventrally flattened and have only one pair of legs on most segments.

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Chapter 6 : Chilopoda - Centipedes | Wildlife Journal Junior

Centipedes have 15 or 21 pairs of legs (the first are hard to see because they are modified as pinchers). Feeding: Centipedes are strictly predators, feeding on most anything they can catch. Taxonomy: Subphylum Myriapoda, Class Chilopoda, with five orders.

They may be confused with millipedes but can be distinguished by the following characteristics: The bite of centipedes may be painful to humans but is not deadly and usually only results in localised swelling and irritation. Scolopendrid centipedes like the one pictured above are robust species ranging from centimetres in length. Most have between 21 and 23 pairs of legs with the last pair usually longer and thicker and used for grasping prey. Scolopendrid species are more common in the drier areas of the country and can often be found under rocks and logs or under the bark of trees. Life Cycle Male centipedes usually spin a small web onto which they deposit a sperm packet for the female to pick up. In some species there may be a short courtship dance or tapping of antennae before the female is encouraged to take the sperm packet into her genital opening. Eggs may be laid in groups or singularly under a rock or log, in the soil or under bark and may or may not be guarded by the female depending on the species. Some species on hatching look exactly like their parents and have the full complement of legs and body segments. Other species have less legs and body segments than their parents and will gain more with successive moults. Centipedes will moult several times before reaching sexual maturity. Feeding Centipedes are predatory and will kill and consume a variety of other invertebrates such as spiders, molluscs, many insects, slaters and other centipedes. Some have been observed feeding on small vertebrates such as frogs, mice and small geckoes. Prey is usually immobilised by venom injected through the fangs and then torn into pieces by the mandibles and the soft parts are eaten. Geophilida earth centipedes Habitat Centipedes are found in a variety of habitats in Australia depending on the species, ranging from moist rainforests to the drier regions of Australia. Centipedes can usually be found living under rocks, logs or the bark of trees or in soil or leaf litter. Many species are common around human dwellings and are often seen in compost heaps or other garden refuse, while some may even venture into houses. Earth centipedes are very long and slender and usually found in moist habitats such as under rocks and logs or in leaf litter. Most species are blind and can be distinguished from other centipedes as they have more than 31 pairs of legs. They have rectangular shaped heads and relatively short legs which enable them to move with ease through the leaf litter and soil of their environment.

Chapter 7 : Chilopoda - centipedes

Centipede The centipede is a speedy, carnivorous invertebrate that is generally found around decaying matter all around the world. Centipedes are not only carnivorous animals but the bite of the centipede also contains venom which means that the centipede kills its prey before eating it.

Five groups that classify all living things Animalia A group of animals within the animal kingdom Arthropoda A group of animals within a pylum Myriapoda A group of animals within a class Chilopoda Most widely used name for this species Centipede The name of the animal in science Chilopoda The place where something is found Worldwide What kind of foods the animal eats Carnivore How long L or tall H the animal is mm 0. Brown The protective layer of the animal Shell The preferred food of this animal Insects The specific area where the animal lives Decomposing matter on forest floor The average number of babies born at once 60 The food that the animal gains energy from Insects, Spiders, Worms Other animals that hunt and eat the animal Birds, Toads, Small mammals Characteristics unique to this animal Long body shape and venomous fangs Centipede Location Centipede The centipede is a speedy, carnivorous invertebrate that is generally found around decaying matter all around the world. Centipedes are not only carnivorous animals but the bite of the centipede also contains venom which means that the centipede kills its prey before eating it. Despite their name, and the common conception that a centipede has legs, this is in fact not true. The centipede has pairs of legs that run the length of the body of the centipede, which are normally between 15 and 30 pairs of legs in total and not There are thought to be around 8, species of centipede worldwide, although only about 3, have actually been properly documented and undergone intense studying in the scientific world. The centipede can be found worldwide and has even been spotted inside the Arctic Circle. The centipede can range in size from a few millimetres to 30 cm long. The centipede is usually found on land in moist habitats usually under rocks, leaf litter, logs and occasionally in burrows in the ground or rotting wood. The centipede favours damp environments and so is rarely found in the hot and dry desert regions. The centipede is one of the most dominant predators of the insect world, having claws on their first body segment is one of the centipedes noticeable traits. The centipede is a carnivorous animal and is therefore a pure meat-eater. Centipedes mainly prey on insects , spiders, earthworms and other small invertebrates although some large species of centipede have been known to prey on small mammals and reptiles. The centipede has a number of predators in its natural environment although all the animals that generally prey on the centipede are relatively small. Birds , toads, frogs and small mammals such as shrews and mice are the most common predators of the centipede. The centipede is also seen by humans in certain cultures. Female centipedes lay an average of 60 eggs per clutch which are coated with a sticky substance for protection. The female centipede usually buries her eggs in the soil and some species of centipede are known to nurse their eggs and baby centipedes but not all. The centipede is one of the oldest animals on Earth having evolved into the form it is today, millions of years ago. The centipede has been found in fossils dating over million years old.

Chapter 8 : Centipedes (class chilopoda) - videos, photos and facts | Arkive

Centipedes ("one hundred legs" in Latin) are Arthropods, members of an invertebrate class that includes insects, spiders, and blog.quintoapp.com centipedes belong to the class Chilopoda, which includes about 3, different species.

After all, the venomous arthropods exist all over the planet, and in countless species, some a lot larger or smaller than others. These invertebrates lead nocturnal lives. Centipede Details Centipedes, in the majority of cases, spend their time in wet environments on terra firma, whether amidst foliage or below stones and decaying logs. They frequently even enter human residences, particularly cellars, closets and restrooms. Although not too common, some centipedes are capable of staying alive in desert environments. Centipedes are predominantly flesh-eating creatures, and insects are their primary dietary preference. They also frequently eat spiders. Particularly big centipedes sometimes go after lizards. Bites from bigger centipedes might be hazardous, however, which is why prompt medical attention is a must. Reproduction Male specimens initiate reproduction by churning out tiny webs. They use these webs as vessels for packages of sperm, which they leave for female centipedes to retrieve. The females then insert these packages into their genitals. They set their eggs down below logs, stones or tree bark, and sometimes even in the dirt. Many female centipedes do carefully watch over their eggs, but this behavior depends on the exact species. Egg-laying occurs in warm times of the year. Wooing Activities Wooing activities are common in many types of centipedes, but not in all of them. Youngsters When wee centipedes emerge from their eggs, they frequently appear similar to adults, just on smaller scales -- think segments, legs and the works. Other types of young centipedes, however, have more growth and development ahead of them. With molting, these centipedes start looking closer and closer to mature individuals. Lots of centipede mothers provide parental assistance for their juveniles, huddling around them and refusing to eat until the little guys are a little stronger and more realized.

Chapter 9 : Adaptations of Centipedes | Animals - blog.quintoapp.com

Centipedes are terrestrial arthropods belonging to Class Chilopoda. Centipedes are flexible, dorsoventrally flattened arthropods. Millipedes belong to Class Diplopoda and are more rigid arthropods distinguishable by their subcylindrical shape.

In the basal subclass Penicillata, consisting of the tiny bristle millipedes, the exoskeleton is soft and uncalcified, and is covered in prominent setae or bristles. All other millipedes, belonging to the subclass Chilognatha, have a hardened exoskeleton. The chilognaths are in turn divided into two infraclasses: Their function is unknown, [5] but they also occur in some centipedes, and are possibly used to measure humidity or light levels in the surrounding environment. These patches are also called ocular fields or ocellaria. Many species of millipedes, including the entire order Polydesmida and cave-dwelling millipedes such as *Causeyella* and *Trichopetalum*, had ancestors that could see but have subsequently lost their eyes and are blind. In many millipedes, these plates are fused to varying degrees, sometimes forming a single cylindrical ring. The plates are typically hard, being impregnated with calcium salts. The second, third, and fourth body segments bear a single pair of legs each and are known as "haplosegments", from the Greek haplo, "single" the three haplosegments are sometimes referred to as a "thorax" [12]. The remaining segments, from the fifth to the posterior, are properly known as diplosegments or double segments, formed by the fusion of two embryonic segments. Each diplosegment bears two pairs of legs, rather than just one as in centipedes. In some millipedes, the last few segments may be legless. The terms "segment" or "body ring" are often used interchangeably to refer to both haplo- and diplosegments. The final segment is known as the telson and consists of a legless preanal ring, a pair of anal valves closeable plates around the anus, and a small scale below the anus. The legs of an individual are generally rather similar to each other, although often longer in males than females, and males of some species may have a reduced or enlarged first pair of legs. Despite the common name, no millipede has been discovered with 1, legs: Millipedes breathe through two pairs of spiracles located ventrally on each segment near the base of the legs. The heart runs the entire length of the body, with an aorta stretching into the head. The excretory organs are two pairs of malpighian tubules, located near the mid-part of the gut. The digestive tract is a simple tube with two pairs of salivary glands to help digest the food. In the basal order Polyxenida bristle millipedes, mating is indirect: The location of the gonopods differs between groups: Left gonopod of *Oxidus gracilis*. False colour SEM image, scale bar: In some groups, the gonopods are kept retracted within the body; in others they project forward parallel to the body. Gonopod morphology is the predominant means of determining species among millipedes: In the female, the genital pores open into paired small sacs called cyphopods or vulvae, which are covered by small hood-like lids, and are used to store the sperm after copulation. Millipede sperm lack flagella, a unique trait among myriapods. Copulation may be preceded by male behaviours such as tapping with antennae, running along the back of the female, offering edible glandular secretions, or in the case of some pill-millipedes, stridulation or "chirping". Many species deposit the eggs on moist soil or organic detritus, but some construct nests lined with dried faeces, and may protect the eggs within silk cocoons. As they grow, they continually moult, adding further segments and legs as they do so. Some species moult within specially prepared chambers of soil or silk, [39] and may also shelter in these during wet weather, and most species eat the discarded exoskeleton after moulting. The adult stage, when individuals become reproductively mature, is generally reached in the final moult stage, which varies between species and orders, although some species continue to moult after adulthood. Furthermore, some species alternate between reproductive and non-reproductive stages after maturity, a phenomenon known as periodomorphosis, in which the reproductive structures regress during non-reproductive stages. In temperate zones, millipedes are most abundant in moist deciduous forests, and may reach densities of over 1, individuals per square metre. Other habitats include coniferous forests, deserts, caves, and alpine ecosystems. They use three main methods of burrowing; bulldozing, wedging and boring. Members of the orders Julida, Spirobolida and Spirostreptida, lower their heads and barge their way into the substrate, the collum being the portion of their exoskeleton that leads the way. Flat-backed millipedes in the order Polydesmida tend to insert their front

end, like a wedge, into a horizontal crevice, and then widen the crack by pushing upwards with their legs, the paranota in this instance constituting the main lifting surface. Boring is used by members of the order Polyzoniida. These have smaller segments at the front and increasingly large ones further back; they propel themselves forward into a crack with their legs, the wedge-shaped body widening the gap as they go. Some millipedes have adopted an above-ground lifestyle and lost the burrowing habit. This may be because they are too small to have enough leverage to burrow, or because they are too large to make the effort worthwhile, or in some cases because they move relatively fast for a millipede and are active predators. They often play important roles in the breakdown and decomposition of plant litter: The leaf litter is fragmented in the millipede gut and excreted as pellets of leaf fragments, algae, fungi, and bacteria, which facilitates decomposition by the microorganisms.