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Chapter 1 : Amphibian Care >> Mixing Different Species of Reptiles and Amphibians Together

On earth reptiles are those animals in which snakes, crocodiles and some other popular species lie. So this list of reptiles have their facts and pictures. Home.

Background[edit] Plants fall into pollination syndromes that reflect the type of pollinator being attracted. These are characteristics such as: When these characteristics are experimentally modified altering colour, size, orientation , pollinator visitation may decline. Bees typically are fuzzy and carry an electrostatic charge. Honey bees , bumblebees , and their relatives do not have a scopa, but the hind leg is modified into a structure called the corbicula also known as the " pollen basket ". Most bees gather nectar , a concentrated energy source, and pollen, which is high protein food, to nurture their young, and inadvertently transfer some among the flowers as they are working. Female orchid bees act as pollinators, but of flowers other than orchids. Eusocial bees such as honey bees need an abundant and steady pollen source to multiply. Honey bees[edit] Honey bee with pollen adhering: Bees are the most effective insect pollinators. Honey bees travel from flower to flower, collecting nectar later converted to honey , and pollen grains. The bee collects the pollen by rubbing against the anthers. The pollen collects on the hind legs, in a structure referred to as a "pollen basket". As the bee flies from flower to flower, some of the pollen grains are transferred onto the stigma of other flowers. Nectar provides the energy for bee nutrition ; pollen provides the protein. When bees are rearing large quantities of brood beekeepers say hives are "building" , bees deliberately gather pollen to meet the nutritional needs of the brood. Good pollination management seeks to have bees in a "building" state during the bloom period of the crop, thus requiring them to gather pollen, and making them more efficient pollinators. Thus, the management techniques of a beekeeper providing pollination services are different from, and to some extent in tension with, those of a beekeeper who is trying to produce honey. Millions of hives of honey bees are contracted out as pollinators by beekeepers , and honey bees are by far the most important commercial pollinating agents, but many other kinds of pollinators, from blue bottle flies, to bumblebees, orchard mason bees , and leaf cutter bees are cultured and sold for managed pollination. Other species of bees differ in various details of their behavior and pollen-gathering habits, and honey bees are not native to the Western Hemisphere ; all pollination of native plants in the Americas historically has been performed by various native bees. An Australian painted lady feeding on nectar Many insects other than bees accomplish pollination by visiting flowers for nectar or pollen, or commonly both. Many do so adventitiously , but the most important pollinators are specialists for at least parts of their lifecycles for at least certain functions. For example, males of many species of Hymenoptera , including many hunting wasps, rely on freely flowering plants as sources of energy in the form of nectar and also as territories for meeting fertile females that visit the flowers. Prominent examples are predatory wasps especially Sphecidae , Vespidae , and Pompilidae. The term " pollen wasps ", in particular, is widely applied to the Masarinae, a subfamily of the Vespidae; they are remarkable among solitary wasps in that they specialise in gathering pollen for feeding their larvae, carried internally and regurgitated into a mud chamber prior to oviposition. Many bee flies , and some Tabanidae and Nemestrinidae are particularly adapted to pollinating fynbos and Karoo plants with narrow, deep corolla tubes , such as Lapeirousia species. Part of the adaptation takes the form of remarkably long probosces. Scoliid wasp foraging Lepidoptera butterflies and moths also pollinate plants to various degrees. Pollination by certain moths may be important, however, or even crucial, for some wildflowers mutually adapted to specialist pollinators. Yucca species provide other examples, being fertilised in elaborate ecological interactions with particular species of yucca moths. Beetles of species that specialise in eating pollen, nectar, or flowers themselves, are important cross-pollinators of some plants such as members of the Araceae and Zamiaceae , that produce prodigious amounts of pollen. Others, for example the Hopliini , specialise in free-flowering species of the Asteraceae and Aizoaceae. Various midges and thrips are comparatively minor opportunist pollinators. Ants also pollinate some kinds of flowers, but for the most part they are parasites, robbing nectar without conveying useful amounts of pollen to a stigma. Whole groups of plants, such as certain fynbos Moraea and Erica species produce flowers on sticky peduncles or with sticky corolla tubes that only permit access to flying pollinators,

whether bird, bat, or insect. Tabanid fly on a thistle flower Carrion flies and flesh flies in families such as Calliphoridae and Sarcophagidae are important for some species of plants whose flowers exude a fetid odor. Other species do decay rapidly after ripening, and offer the visiting insects large masses of food, as well as pollen and sometimes seed to carry off when they leave. Hoverflies are important pollinators of flowering plants worldwide. The orchid species Epipactis veratrifolia mimics alarm pheromones of aphids to attract hover flies for pollination. Aedes communis, a species found in North America, is known to be pollinating the Platanthera obtusata , commonly referred as the blunt-leaved orchid. Examples are known from all continents apart from Antarctica , though Australia appears to be exceptionally rich in examples. Other insect orders are rarely pollinators, and then typically only incidentally e. Tropical flowers like Tacca chantrieri are bat -pollinated. Bats are important pollinators of some tropical flowers, visiting to take nectar. Other vertebrates , such as kinkajous , monkeys , lemurs , possums , rodents and lizards [18] have been recorded pollinating some plants. Humans can be pollinators, as many gardeners have discovered that they must hand pollinate garden vegetables , whether because of pollinator decline as has been occurring in parts of the U. This can involve using a small brush or cotton swab to move pollen, or to simply tap or shake tomato blossoms to release the pollen for the self pollinating flowers. Tomato blossoms are self-fertile, but with the exception of potato-leaf varieties have the pollen inside the anther , and the flower requires shaking to release the pollen through pores. This can be done by wind, by humans, or by a sonicating bee one that vibrates its wing muscles while perched on the flower , such as a bumblebee. Sonicating bees are extremely efficient pollinators of tomatoes, and colonies of bumblebees are quickly replacing humans as the primary pollinators for greenhouse tomatoes. Pollinator population declines and conservation[edit] Main article: Pollinator decline Pollinators provide a key ecosystem service vital to the maintenance of both wild and agricultural plant communities. Although managed bee hives are increasing worldwide, these can not compensate for the loss of wild pollinators in many locations. Declines in the health and population of pollinators pose what could be a significant threat to the integrity of biodiversity, to global food webs, and to human health. An estimated one out of every three bites of food comes to us through the work of animal pollinators. The quality of pollinator service has declined over time and this had led to concerns that pollination will be less resistant to extinction in the future. Strategy[edit] In recent times, environmental groups have put pressure on the Environmental Protection Agency to ban neonicotinoids , a type of insecticide. The administration announced it would include input from the pesticide industry in putting together the initiative. Department of Agriculture are leading the task force. Pollination syndrome and List of crop plants pollinated by bees Wild pollinators often visit a large number of plant species and plants are visited by a large number of pollinator species. All these relations together form a network of interactions between plants and pollinators. Surprising similarities were found in the structure of networks consisting out of the interactions between plants and pollinators. This structure was found to be similar in very different ecosystems on different continents, consisting of entirely different species. Mathematical models, examining the consequences of this network structure for the stability of pollinator communities suggest that the specific way in which plant-pollinator networks are organized minimizes competition between pollinators [23] and may even lead to strong indirect facilitation between pollinators when conditions are harsh. But it also means that pollinator species collapse simultaneously when conditions pass a critical point. This simultaneous collapse occurs, because pollinator species depend on each other when surviving under difficult conditions. The improvement in conditions needed for pollinators to recover, could be substantially larger than the improvement needed to return to conditions at which the pollinator community collapsed.

Chapter 2 : We Care for a Wide Variety of Pets - Zia Pet Hospital

And about other species of alligators, crocodiles, lizards, snakes, turtles, and tortoises. You'll encounter them all at the Saint Louis Zoo. Next time you visit the Zoo, be sure to look for our reptiles at the Herpetarium and the Emerson Children's Zoo.

They are fascinating reptiles that are able to climb, even smooth surfaces, like glass and walk on ceilings, because of adhesive pads on their toes. These have been the subject of much scientific study, each pad is covered in thousands of hairs, known as setae, each of which is subdivided into hundreds of spatulae, which are 0. They are also the only lizards that can vocalise. In fact the name gecko comes from sound the sound the tokay gecko makes. A pair of the reptiles will interact with each other by making chirping sounds, as well as bobbing their heads or wagging their tail. Geckos can easily lose their tails as a form of defence. The tail will grow back, although often it will not look the same as the original tail and will not have the same colour. Therefore when keeping these animals it is important to make sure they do not drop it. Never catch a gecko by its tail, and avoid touching it. Out of all the species of geckos found around the world, several species are bred in captivity. The following is a description of the different types of geckos commonly available for people who want to keep them as pets. The leopard gecko is great for the beginner keeper Source The Leopard Gecko The leopard gecko, Eublepharis macularius ,is the most common gecko kept as a pet. Native to the deserts of Pakistan and NorthWest India, it is very hardy and easy to care for. Leopard geckos are unusual differ from the majority of geckos, in that they are ground dwelling and do not climb. They are nocturnal, spending the hot days hidden under rocks or in holes in the ground, and when kept in a terrarium appreciate hiding places. Through selective breeding a huge variety of colour morphs is now available. These range from albinos, to lizards with patterns that are different from the wild type bands, known as jungle, lizards that have a large amount of orange pigment, ones with one long band running from the head to the tail, and many others. The absolute leader in the field of breeding morphs is Ron Tremper who was the first to develop many of the different colour variations and still breeds amazing geckos today. Leopard geckos are fairly docile and can easily get used to being handled by their keepers. They were once thought extinct, and were only discovered again in Now, through a program of captive breeding in the United States and Europe, they are one of the most popular reptile pets, and they are very easy to find by hobbyists looking to keep them. The common name of Rhacodactylus ciliates derives from the hair-like skin projections above each eye, and running from the eyes to the tail. These lizards are nocturnal and arboreal. Their adhesive toes end in little claws which help them to cling to surfaces. The tail is also semi-prehensile and ends in an adhesive pad. These are fairly hardy geckos, that are easy to keep and tolerate being handled by their owners. As well as insects, they feed on fruit, and can be maintained on a commercial diet, rhapashy, sold as a powder. They require a tall vivarium with many branches to climb, and preferable live plants. They are very brightly coloured, often green with red markings, although the neon day gecko , has a yellow head and two neon blue lines running down its side. Blue markings are also present on other species such as the amusing blue eye shadow that the gold dust gecko uses. Unlike the majority of species, Phelsuma geckos are diurnal, active during the day. They love sunning themselves on a branch, and need strong UV light to allow them to absorb calcium and bring out their best colours. They are more sensitive to errors in their husbandry than the previous species, but with careful research and set up they can do very well in the terrarium and are fairly easy to breed. They tend to be very aggressive, but only towards each other, and are usually kept as a pair. Two males housed together will fight to the death of one of them. A male and a female will usually co-exist well, but when a pair is introduced to each other they must be watched carefully to make sure they are getting along. They tend to be quite shy, and need to get used to their keeper before they allow themselves to be observed. Because of their very fragile skin they should not be handled. To help them feel at home, their tall terraria should be well planted and furnished with a variety of bamboo tubes, in which they hide and sleep. If you cut some small wholes in the bamboo, you will be rewarded with the sight of the little geckos sticking their heads out, after the lights switch on to survey their surroundings. Baby neon day gecko peaking out of bamboo Source Pair of P. Source The Electric

Blue Gecko Lygodacylus williamsi geckos definitely deserve their common name of electric blue gecko, although it is only the males who sport the brilliant blue colour, females range from drab brown to green. These small lizards were discovered in the Kimboza forest of Eastern Tanzania in the s and it appears to be the only place on earth where they can be found. Unfortunately their natural habitat is being destroyed by logging, so their numbers in the wild are likely to diminish alarmingly. As of March export of wild caught lizards has been completely banned, so all future pets will have to come from captive breeding the small number of lizards already exported. After the ban their prices have soared, however as more are bred they might well fall down again. Overall this is a rather welcome development since captive bred geckos are far more hardy and easy to keep than wild caught animals. The electric blue gecko is often referred to as a day gecko, but it does not belong to the genus Phelsuma, so is not a true day gecko. However its care is very similar to Phelsuma geckos, it is also active during the day, requires a tall, planted tank, and eats insects and nectar. Males are territorial and only one should be kept in an enclosure. The geckos communicate through a series of chirps, inflating their throats, bobbing their heads and wagging their tails. They are bold geckos, easily tamed, and although too small and fragile to be handled, will learn to climb onto their owners hands and take food from it. Is being able to handle a pet important to you? It is not meant to substitute for diagnosis, prognosis, treatment, prescription, or formal and individualized advice from a veterinary medical professional. Animals exhibiting signs and symptoms of distress should be seen by a veterinarian immediately.

Chapter 3 : Types of Lizards | Animal Pictures and Facts | blog.quintoapp.com

Reptile Classification. Today, scientists classify reptiles into four major groups known as "orders." These four reptile orders are as follows: Crocodilia â€" crocodiles, gharials, caimans and alligators: 23 species.

Lizards-in-Scarves If you want to dive right into the site to look for herp care information, find a reptile vet or a herp society, or check out the other information resources here, use the links on the left. Information about the site itself, about me, and some other things some folks are interested in, check out information below. The Blue Iguana Recovery Fund helps fund ongoing conservation efforts in breeding-for-release, community education, and habitat conservation programs in the Cayman Islands for the endangered Cyclura lewisi. Help support their work by making direct donations, or buy one of their new King Blue Bobbleheads! Also, check out a day in the life of a volunteer at the BIR facility doing noosing, measuring, behavior observations and more What does anapsid mean? Email Addresses To help prevent malicious harvesting of email addresses from this site, I have encoded email addresses with an exclamation point and blank space! To send email to those who have email links, you will need to first remove the exclamation point and space. Read more about site rationale and accessibility The Writer and Her Writings As will become apparent when reading many of my articles, I am an animal welfarist. I strongly believe that if humans are going to keep animals--in any setting--we have the responsibility, the obligation, to care for them properly. Unfortunately, care information for many species now being imported is lacking, while information that exists for many others is so wrong that it would benefit those species if the information did not exist at all. All new animal keepers make mistakes. I feel that it is the responsibility of those who have walked that path before to share as much information as possible so that the newcomers will avoid the mistakes we made. Hoarding information is as bad as hoarding animals. No one benefits, least of all the animals. Another personal point of view will also be seen to emerge in many of my herp writings. This particular point of view stems from the things I have had to learn, often the hard way, after being stricken with with several illnesses, including those that affect my neuroendocrine and immune systems. While the ways in which I was exposed to chemicals and tickborne diseases may be unique for someone who was for so long a strictly urban creature, the fact remains that I am far from unique in a world where every living thing has become a guinea pig for the chemical stew which surrounds us every day and every night. Stress exacerbates all illness and can make healthy people--and animals--ill. Animals in captivity are under constant stress, even those kept in the most perfect of environments. And so you will see me make recommendations and cautions that are apparently contrary to everything else written by those who write about animal care. Few of those authors, however, share my own experience and learning in these areas. My bottom line is always the health and functioning of the animals and their keepers. Why Help Support This Site? I had to take my site down in because of new traffic bandwidth charges assessed by my Internet service provider. Veterinary Information Network stepped up and gave me a place to put my site back online, but there are still ongoing expenses that are tough to make when you are unable to work for a living. Site Rationale This site is to help herp keepers and others learn about the captive care requirements of many types of reptiles and amphibians, as well as learn about their biology, health, behavior, conservation, and other matters relating to herps and the world we all live in. Most of the information here is herpetological or herpetocultural in nature, including many of my articles and care documents, links to certain other sites, and some other things that I find important but that may or may not interest you. Please take some time to familiarize yourself with the layout of this page and cluster pages At last count, there are over articles arranged in several thematic clusters. I do hope you will take some time to browse through the cluster pages see the links to your left, which also appear at the bottom of every article page. Graphic Images Many people note the paucity of graphic images at my site. Bottom line is that there are still a goodly number of folks out there without high-speed modems and graphics capabilities or slow phone lines with no DSL in sight. There are many sites with wonderful graphics, so no one is being deprived. If you want graphics, check the graphics sites linked to my Resources page. Accessibility Along with maximizing the load time while still providing comfortably readable formatted text, my second concern is to keep the site widely accessible. There are many

websurfers out there who have autoimmune, visual or other disorders or impairments that make it impossible for them to use newer computers, or difficult to navigate a site with all the latest bells and whistles as well as lots of cute graphics, photos, JAVA scripts, applets, etc. While many webmastes address the differences between browsers and Mac vs. There are a huge number of disabled people and others who simply cannot afford to upgrade their equipment as often as they would like. Since my site is all about providing information, its format and design is geared towards being easy to access and read for as many people as possible.

Chapter 4 : Different Types of Geckos | PetHelpful

A List of Different Types of Lizards With Facts and Pictures There are more than species of lizards found on Earth. Each of them has unique characteristics with regards to their food, habitat and self-defense.

In this system, most females have two of the same kind of sex chromosome XX , while most males have two distinct sex chromosomes XY. The X and Y sex chromosomes are different in shape and size from each other, unlike the rest of the chromosomes autosomes , and are sometimes called allosomes. In Y-centered sex determination, the SRY gene is the main gene in determining male characteristics, but multiple genes are required to develop testes. In XY mice, lack of the gene DAX1 on the X chromosome results in sterility, but in humans it causes adrenal hypoplasia congenita. For example, while having an XY format, Xiphophorus nezahualcoyotl and X. However, homologues to the avian DMRT1 gene on platypus sex chromosomes X3 and X5 suggest that it is possible the sex-determining gene for the platypus is the same one that is involved in bird sex-determination. More research must be conducted in order to determine the exact sex determining gene of the platypus. X0 sex-determination system In this variant of the XY system, females have two copies of the sex chromosome XX but males have only one X0. The 0 denotes the absence of a second sex chromosome. Generally in this method, the sex is determined by amount of genes expressed across the two chromosomes. This system is observed in a number of insects, including the grasshoppers and crickets of order Orthoptera and in cockroaches order Blattodea. A small number of mammals also lack a Y chromosome. These include the Amami spiny rat Tokudaia osimensis and the Tokunoshima spiny rat Tokudaia tokunoshimensis and Sorex araneus, a shrew species. Transcaucasian mole voles Ellobius lutescens also have a form of XO determination, in which both sexes lack a second sex chromosome. These genes reduce male gene activation and increase it, respectively. ZW sex-determination system The ZW sex-determination system is found in birds, some reptiles, and some insects and other organisms. The ZW sex-determination system is reversed compared to the XY system: In the chicken, this was found to be dependent on the expression of DMRT1. This is due to the fact that the haploid eggs double their chromosomes, resulting in ZZ or WW. The ZZ become males, but the WW are not viable and are not brought to term. When meiosis occurs in the sporophyte generation of the life cycle, the sex chromosomes known as U and V assort in spores that carry either the U chromosome and give rise to female gametophytes, or the V chromosome and give rise to male gametophytes. Haplodiploidy Haplodiploidy is found in insects belonging to Hymenoptera , such as ants and bees. Unfertilized eggs develop into haploid individuals, which are the males. Diploid individuals are generally female but may be sterile males. Males cannot have sons or fathers. This may be significant for the development of eusociality , as it increases the significance of kin selection , but it is debated. This allows them to create more workers, depending on the status of the colony.

Chapter 5 : Sex-determination system - Wikipedia

Some examples of reptiles are crocodiles, alligators, snakes, lizards and turtles. Reptiles are cold-blooded vertebrates that have scales. Since reptiles are cold-blooded, their bodies respond to the temperature of the surrounding environment. When reptiles become too cold, they go out into the sun.

They inhabit all of the continents apart from Antarctica, from sea level to heights of 16, feet m. Lizards live in diverse environments and are the most geographically widespread of the reptiles. That makes them the largest group of reptiles with about species. They have walked the earth for some million years. Reptiles have the following physical features: They are cold-blooded, getting all of their heating from the environment the sun which can be deadly during cold spells. What could be good about that? Well, this allows the reptiles to eat much less than a mammal of the same weight might. In the desert, for example, this might be useful in terms of competing for food. However, poor temperature control means they need to be active when the temperature is suitable and for this reason most are active during the day. The classification or taxonomy of lizards can be subject to interpretation and change but here are the major groups and families: Their size ranges from 2 in to 10 ft in length. There are 2 species that are venomous, the gila monster and the Mexican beaded lizard. Chameleon Some lizards change colors very quickly to match their environment, like the chameleon. Their colors are also affected by the sun. A cold lizard may be dark and colorless. Distinct colors, aside from simply being interesting, like having a blue tongue, a bright red dewlap, or yellow spots, may help lizards identify each other and even communicate. Lizards have very keen eyesight and they also use body language posturing and gestures such as head-bobbing to communicate with each other. See more about Chameleons Collared Lizard You may notice that the collared lizard pictured above is shedding a layer of old skin. The skin or scales of a lizard is made up of keratin. This substance is also what human fingernails are made of. Collared lizards are known to be aggressive and they eat other species of lizards. The Tale of the Amazing Regenerating Tail Encountering a dangerous predator, some lizards can voluntarily shed their tails into one or more pieces. Prior to losing the tail, some, such as the Texas banded gecko, slowly wave the vertical tail in the air from one side to another. This tactic is employed to cause the snake or other predator to focus on the tail instead of the more vulnerable head or body. Species capable of this feat have a "fragile" tail, with fracture planes in one or more of the vertebrae. A wall of connective tissue or cartilage passes through each such vertebra, making a weak point, where muscles and blood connections are also modified to allow an easy break. After shedding a tail the a new one slowly grows back, but never quite the same as the original. It may not have all the vertebrae with fracture planes, but it has all the functions of the original which assist in running, swimming, balancing or climbing, camouflage, courtship, mating and fat-storage. If the tail breaks at any other place than a fracture plane, regeneration is slight. For example, the fat stored in the tail is normally broken down and used for growth and maintenance when food is scarce or no longer available, especially in winter or drought. Some species, like the Australian marbled gecko, is known to live longer when it has a tail. Tail regeneration itself may require substantial energy, an expenditure that could be used instead for reproduction, perhaps making larger eggs. In the Texas banded gecko, at least, reproduction is known to have energetic priority over tail regeneration. This may be true for other short-lived species of lizards, especially when the probability of producing offspring is low. At least some species in most of the families of lizards are capable of tail-loss except for all species of chameleons, beaded lizards, the Bornean earless lizard, monitors and xenosaurs. Diet Many lizards are fearsome predators themselves, feeding on insects, birds and even mammals and other members of the reptile family. The most impressive predator would be the Komodo dragon, that is a scavenger as well as a predator, and can overtake goats and even water buffalo. Its teeth are compressed with sharp edges, resembling those of sharks. The dragon literally rips chunks of flesh from its large prey. It also possesses a highly flexible skull that allows it to swallow big bites of flesh. The Caiman lizard eats snails. Its rigid skull and tough teeth provide it with the power for breaking shells. A small percent about 2 percent of known species of lizards are primarily vegetarian. Iguanas consume a wide variety of plant material, especially as adults. The marine iguana of the Galapagos Islands may win the vegetarian prize for

their deep diving efforts to find plant material. Some skinks feed on plants and fruits. Other species change their diets as they grow and with the seasons to take advantage of the available food supply. Territorial skirmishes are common among lizards and a number of body movements indicate territorial ownership or aggressive intent such as: Sometimes such behavior can leave posturing lizards vulnerable to vigilant predators. Males are often looking to hold a nice territory for mating. Females are also territorial in some species. Body language is also a big part of mating rituals. Head-bobbing, tail-waving, dewlap-moving, back-arching and dancing may be crucial for mating communication, whether it be accepting or rejecting mates. Other species can use chemical secretions or vocalizations to communicate mating information. There are species of lizards that have no males! The females produce eggs that need no fertilization. This, however, limits the genetic variety of the species. There are a few species that may watch over their eggs. Otherwise, mating and finding a good spot to lay eggs is considered a job well-done. Common Iguana Unfortunately for lizards, life on the earth populated with humans is not all about good times. Central Americans like to eat the iguanas and think they taste good, calling them "tree chicken". In Central America, the black iguanas are called garrobos, and the green iguanas are called iguanas, so you might find "sopa de garrobo" or "iguana soup" on some menus. Charbroiled tail of iguana can also be found. The common method of hunting is with a slingshot. Freshly killed prey is often held up for display alongside the highway by the hunters, in order to entice buyers. Another lizard, the uromastyx or spiny-tailed lizard, is commonly eaten in many countries from Northern Africa through the Middle East and in India. Common Iguanas are not bad swimmers. When attacked, an iguana may jump from a tree or rock into the water to swim away. Marine iguanas live only on the Galapagos Islands and it is thought that they arrived to the islands by floating from mainland South America on debris. They can dive as deep as 50 feet 15m underwater to feed on algae. They can stay under water for up to 20 minutes. In order to stay down for very long in colder temperature water they have to first heat up their bodies in the sun, slow down their hearts in the water, then re-heat in the sun again once they get out. Tad Arensmeier Basilisks are great runners. When in danger, these lizards start running upright on their back legs. They can even run fast enough to walk, or run really, on water. This has caused them to be referred to as the "Jesus Christ Lizard". See more about the Jesus Lizard Tuatara - Source: Tad Arensmeier The tuatara has virtually remained the same for over million years. The tuatara is a reptile, but not in the lizard family, it is part of the family Rhynchocephalia which translates to Beakheads which appeared over million years ago. All the Beakheads, besides the tuatara - 2 species, became extinct about 60 million years ago. They are very rare, nocturnal animals. When threatened, they crawl into crevices and puff-up their bodies so that they are tightly wedged in and nothing can yank them out. Also see the similar thorny devil Flying Dragon Lizard A flying dragon lizard avoids danger by opening two large, winglike flaps of skin and gliding from tree to tree. The lizard steers and brakes with its tail. The large flaps are supported by elongated ribs which they can expand and retract. The wings are brightly colored and for this reason they are also called the "butterfly lizard". They are generally docile. Gecko The Gecko is the only lizard and reptile that speaks or barks. Many species are well known for their specialized toe pads that enable them to climb smooth and vertical surfaces, and even cross indoor ceilings with ease. There are an estimated 2, different species of geckos worldwide, with many in existence still yet to be found. Just recently a million-year old gecko species was discovered in the Eastern Himalayas. One gecko with distinct coloring and bark! They open their frills around their necks and hiss when threatened. There are more than different species in Africa, Asia and Australia. Their counterpart in the Americas would be the Iguanidae. Some agamids enjoy the water and others prefer the trees.

Chapter 6 : Melissa Kaplan's Herp and Green Iguana Information Collection

Most reptiles -- including snakes, lizards and turtles -- don't do well living with other species. While some can cohabit with frogs or salamanders, those creatures are amphibians, not reptiles. The most important factor is the most obvious -- ensure that reptile species won't eat or attack each other.

Contact Author Source Boas and pythons are some of the largest snakes in the world. They kill their prey by constricting it, using their strong muscles and coiled bodies to suffocate their prey before eating. Unlike elapids and vipers, boas and pythons are nonvenomous. They are frequently kept as pets due to their docile nature and easy care. Here are some key differences between Boas and Pythons: Pythons are found in Africa, in the tropics just south of the Sahara Desert. Some pythons live on the Indonesian islands and Malaysia. However, most pythons in the United States are bred as pets; while they could survive and thrive in places like the Florida everglades, it is important to keep these snakes in captivity so they do not become a huge problem for the other animals that live in these subtropical regions. The largest member of the group is the boa constrictor, but it is important to note that this is only one species of boaâ€”all boas are constrictors. A constrictor is a snake that kills prey by constriction. Anaconda Source Anacondas live in the marshes, swamps, and slow-moving streams of the Amazon and Orinoco basins in South America. They are slow on land but stealthy and quick in the water. Their eyes and nasal passages are on the top of their heads, allowing them to almost completely submerge themselves in the water to wait for prey and approach their hideaways. Ball Python Source Ball pythons are among the most common pet snakes in the world. They do not get very large compared to other snakes in the python family, and they are relatively easy to care for. There are many kinds of ball python morphs. This snake is named for its ability to coil itself in a ball as protection from predators. Ball pythons originated from and live in the dry grasses of the north and central African savannas or along the forest edges. They can climb into trees, but rarely do so. They are heavily built, meaning they are fairly wide for their length. Their tails are short, while their bodies are thick compared to other snakes of the Python family. Color patterns consist of beige, tan or grayish-brown ground color overlaid with blotches that are brick- to blood-red in color. These snakes are killed for their skin. Roughly , blood pythons are harvested every year for their scales. They are also kept as exotic pets, but are aggressive compared to the docile ball python. Boa Constrictor Source Boa constrictors come in a variety of colors. Generally, they are a brown, grey, or cream color with red and brown patterns. These patterns become more pronounced near the tail, as in the case of the red-tailed boa. The coloring is an effective camouflage in the jungles and forests of South and Central America, where this species is most commonly found. These snakes prefer the rainforest because of the humidity, but can survive in near-desert climates if necessary. The head is covered with enlarged shields used for protection and for burrowing into the ground. The shape of the tail closely resembles that of the head, which is most likely used to confuse predators. This snake lives in the moist rainforests of west and central Africa, but can be found as far east as Lake Kivu. Like Ball Pythons, this snake is bred into many different colored morphs. There is no one distinct color for this species. These snakes lay eggs and the mother snake coils around her eggs until they hatch, but after the eggs hatch, the mother snake does not care for her young. Carpet pythons are usually nocturnal but often warm themselves in the sun. These snakes coil themselves around tree branches waiting for prey to get close enough. They have a slower metabolism than other snakes so they can go months without eating. These snakes live in the rainforests of South America. They have highly developed front teeth that are proportionately larger than those of any other nonvenomous snakes. Females give birth to live young, producing an average of between 6 and 14 babies at a time, sometimes even more. Emerald Tree Boa Facts: Some are totally patternless, while others may be speckled, banded, or saddled with rhomboid or chevron shapes. Some are red with yellow patterns, some yellow with red or orange patterns. These snakes are slimmer than most other boas and fairly lightweight for their length. Garden Tree Boa Facts: Mexican Burrowing Snake Source These snakes resemble members of the python family, but are believed to be unrelated. Mexican Burrowing Snake Facts: The most colorful species live in the Brazilian rainforest. Although it is a hard animal to raise in captivity, it is a common pet. It gets its name from the iridescent sheen

of its scales, not the actual color. Most Rainbow Boas are red to orange in color, with distinct, usually circular, black markings. Reticulated Python Source The Reticulated Python is the longest snake in the worldâ€”four feet longer than the second longest, the Green Anaconda. It is found in forests, grassland, and farmland throughout Southeast Asia. This snake does eat humans if threatened, but attacks are very rare. There are m any size, color, and marking variations among Reticulated Pythons depending upon where they live.

Chapter 7 : Pollinator - Wikipedia

Keeping reptiles, amphibians, and land invertebrates is a fascinating hobby, and has many advantages over other types of pets. The terrarium requires very little space and can be an aesthetically pleasing showpiece.

A good example is the snake. Snakes gained an evil reputation in their depiction in the Garden of Eden, yet they have also become a symbol of health, hygiene, and medicine, as depicted by the snake entwined around the Greek god of healing, Aesculapius. In natural science, amphibians and reptiles are bundled together as the study of Herpetology, which is a branch of Zoology. Collectively they are known as herps, herptiles, or herpetofauna. Herptiles are vertebrates and include both reptiles and amphibians. The arthropods are land invertebrates and include the arachnids scorpions, whip scorpions, and tarantulas , centipedes, millipedes, and many others. In more recent times, keeping these amazing animals as pets has seen an explosion of interest. The number of both professional and amateur herpetologists is greatly increasing. This has been helped by improvements in communications and the growing interest in wildlife, impassioned by ever improving nature films and documentaries. This interest has continued to develop and grow the hobby, and has resulted in an increased knowledge of breeding techniques and general herptile care. The ultimate reward for both the animal world and humanity, is people equipped with knowledge and the ability to help maintain and possible save many endangered species from extinction. Keeping Reptiles, Amphibians and Arthropods as Pets Keeping reptiles, amphibians, and land invertebrates is a fascinating hobby, and has many advantages over other types of pets. The terrarium requires very little space and can be an aesthetically pleasing showpiece. A terrarium with plants, mosses, driftwood, and rocks brings a touch of nature into a city centered home or apartment. These creatures are generally quiet, clean, odorless, and non-demanding. Once the terrarium is setup, the cleaning and maintenance chores are minimal. Most species do not need feeding everyday, which is a distinct advantage during holidays. Animal-World species guides are provided for reptiles and amphibians, collectively known as herptiles, and land invertebrates like spiders, tarantulas, scorpions and more, collectively known as antrhopods. These guides help with identification and the care of individual species. A beginner will learn about herptiles and arthropods, be able to set up a terrarium, and obtain healthy animals. They will learn to be able to keep them successfully, and may even breed them. Each guide has in-depth species information covering everything from their native place of origin and when first scientifically described, the habitats and behaviors of each species, and the care needed to keep them as a pet. Pictures for each type of reptile, amphibian, or land invertebrate are provided within each guide. These not only help with species identification, but aid in choosing the right pet. Reptile Facts Reptiles are a group of vertebrates with over species and are found in all regions of the world except for Antarctica. Most reptiles are oviparous egg-laying animals with the exception of some ovoviviparous live-bearing constrictor snakes and vipers. An ovoviviparous reptile holds the eggs inside its body until they hatch and then the living young are delivered. Reptiles are members of the Reptilia class, which include four living orders as well as fossil groups like the dinosaurs. Squamata The order Squamata includes the lizards, snakes and worm lizards and has about 7, species Testudines The order Testudines includes the turtles, terrapins and tortoises with about species Crocodilia The crocodilians in the order Crocodilia include the crocodiles, gavials, caimans, and alligators. There are 23 species Sphenodontia The tuataras from New Zealand are in the order Sphenodontia with just 2 species. The Reptilia class also includes fossil groups like the dinosaurs. It is estimated to have been during the Carboniferous period, about million years ago, that the first reptiles evolved from advanced reptile-like amphibians. Amphibian Facts Amphibians are characterized as ectothermic cold-blooded tetropods vertebrate animals that have four limbs with non-terrestrially adapted eggs. Most have a life cycle moving from a water-breathing juvenile form with gills, to an adult air-breathing form. There are some, however, that retain the juvenile gills into adulthood, and remain in this state for their entire lives. Amphibians are a relatively small group of vertebrates with over species. They belong in the class Amphibia which includes three orders. Gymnophiona The lesser-known limbless caecilians of the order Gymnophiona superficially resemble earthworms or snakes and mostly live hidden in the ground. Frogs, toads and salamanders have been creeping

along on the earth for millions of years before humans evolved. It is estimated to be about million years ago that the first fishes came out of the water onto the land and evolved into the first amphibians. Arthropod Facts The land invertebrates included here are all arthropods, and members of the Phylum Arthropoda. Arthropods are invertebrate animals. They have an exoskeleton external skeleton , a segmented body, and jointed appendages. Within the Arthropoda Phylum, they are classed as follows: Arachnids The Arachnids include the tarantulas, scorpions and the whip scorpions, more commonly called vinegaroons or vinegarroons. They are all members of the Arachnida class of joint-legged invertebrate animals in the subphylum Chelicerata. All arachnids have eight legs, and almost all are terrestrial. A few, however, inhabit freshwater and marine environments as well. Arachnids comprise over , named species including spiders, scorpions, harvestmen, ticks, mites and Solitude. Tarantulas Tarantulas are spiders in the order Araneae. They are air-breathing arthropods that have eight legs, and chelicerae with fangs that inject venom. They are the largest order of arachnids Anatomically, spiders differ from other arthropods in that the usual body segments are fused into two tagmata, the cephalothorax and abdomen, and joined by a small, cylindrical pedicel. Unlike insects, spiders do not have antennae. Scorpions Scorpions belong in the the order Scorpiones. These arthropods have eight legs and are distinguished by the pair of grasping claws and a thin segmented tail. The tail arches forward over the back with a venomous stinger on the end. They range in size from and incredibly small. Scorpions are predatory animals found on all continents except Antarctica. There are about 1, described species. Whip Scorpions Whip Scorpions These are arachnids in the order Thelyphonida, and are commonly referred to vinegaroons, or vinegarroons. The name whip scorpions came about because most of them resemble true scorpions due to their whip-like tails. Thelyphonids were previously in the Uropygi order, so in the scientific community they are also often called Uropygids. Short-tailed Whip Scorpions These are smaller soft-bodied arachnids in the order Schizomida. Schizomids superficially resemble spiders. The term "amblypygid" means "blunt rump", which relates to their lack of a tail like that found on the Whip Scorpions, or Thelyphonids. They have large, rather pincher-like pedipalps for grabbing prey. Despite their appearance, Tailless Whip Scorpions are totally harmless to humans. Myriapods The Myriapods are "many legged" arthropods containing nearly 13, species. They have bodies that are elongated and segmented. Each segment has a pair of legs, or appendages, and like insects their appendages have only one branch, or ramus. The number of appendages can vary from fewer than ten to nearly pairs of legs. Myriapods are terrestrial, and most live in humid environments. They are found in soils, leaf litter, or under stones and wood. Most species have specialized glands, repugnatorial glands, that secrete a foul-tasting substance, and function as a defense. Centipedes The Centipedes are members of the Chilopoda class of invertebrates in the subphylum Myriapoda. They are elongated metameric invertebrates with one pair of legs per body segment. The number of legs varying by species, from under 20 to over There are estimated to be about 8, species of centipedes. Centipedes are carnivores and are unique in that they have "forcipules", a pair of venom claws formed from a modified first appendage. Some centipede species can be hazardous to humans because of their bite, Although the bite is painful, it is unlikely to be fatal to an adult. But it can be dangerous to children or those allergic to bee stings, and could induce anaphylactic shock in such people. Millipedes The Millipedes are members of the Diplopoda class of invertebrates in the subphylum Myriapoda. Most millipedes have very elongated cylindrical bodies, segmented with two pairs of legs per segment. However they have no legs on the first segment behind the head, and then only one pair of legs on the next few segments, but two pairs of legs per segment after that. These are mostly slow moving detritivores, that feed on decaying leaves and other dead plant matter. Other Arthropods Other land invertebrates like the Hissing Cockroach, are members of the Insecta class, and are within the Phylum Arthropoda.

Chapter 8 : Phylum Chordata

Other species can use chemical secretions or vocalizations to communicate mating information. There are species of lizards that have no males! The females produce eggs that need no fertilization.

Phylum Chordata The phylum Chordata contains all animals that possess, at some point during their lives, a hollow nerve cord and a notochord, a flexible rod between the nerve cord and the digestive track. The phylum Chordata is an extremely diverse phylum, and the one most recognizable to us. The phylum contains about 43, species, most of them concentrated in the subphylum Vertebrata, making it the third-largest phylum in the animal kingdom. The phylum Chordata is divided into three subphylums: Urochordata tunicates , Cephalachordata lancelets , and Vertebrata vertebrates. The first two phyla are very small containing only about 2, species total. Tunicates are marine animals that only show the attributes of the chordata phylum in the larva stage, and when they turn into adults lose the notochord and nerve cord. Adult tunicates look like small sacs around 3 cm tall attached to the ocean floor. Lancelets, which are similar in appearance to small fish, keep the nerve chord and notochord into maturity but are extremely simple in structure and lack a backbone. The third phylum, vertebrata, is the most important, and is distinguished by a backbone made either of bone or cartilage containing interlocking vertebrae and a skull enclosing a brain. These two features serve to protect the entire central nervous system, and in addition give support and structure to the body; these bones also form part of a larger system of bones, the endoskeletal system. Unlike the exoskeleton of other phylums such as the arthropods, which must be shed periodically, this endoskeleton is permanent and can grow with the organism. This endoskeleton gives vertebrates a competitive edge over all other animals, as it can easily be scaled for use in large organisms, and it allows these organisms to be relatively light and fast-moving. In comparison, most organisms with an exoskeleton are small and slow-moving, due to the limitations of their large and bulky skeletal system. Jawless fish Jawless fish are the most primitive vertebrates, and are similar to other fish with the exception that they have not evolved any sort of jaw, instead using a circular, suckerlike mouth to latch onto and suck the blood of their prey. Eels are another example of jawless fish. Cartilaginous fish Cartilaginous fish have jaws, but have a skeleton made of flexible cartilage rather than bone hence the name of the class , with only the teeth and sometimes the vertebrae containing calcium. Examples of cartilaginous fish are sharks, skates, and rays. Cartilaginous fish are often predators, and can be found in coeans throughout the world. Several examples of cartilaginous fish are shown below from left to right, Blue shark, sawfish: Bony fish Bony fish are the largest class of vertebrate, with over 29, species, and have succeeded in a large variety of environments, including freshwater lakes, coral reefs, and deep-sea beds. Unlike cartilaginous fish, bony fish have a skeleton made of bone, and also have good eyesight, unlike that of cartilaginous fish, which is often very poor. In addition, bony fish have a special air-filled sac, the swim blatter, which allows them to remain buoyant. Bony fish can breathe without swimming because of a special flap of skin called the operculum, which covers the gills and when moved forces water over the gills. Examples of bony fish are salmon, cod, and sturgeon. An Atlantic salmon is shown below: Amphibians Amphibians consist of all four-legged vertebrate that do not lay amniotic eggs meaning that the eggs do not contain a fluid-filled sac called the amnion surrounding the developing embryo. As a result, the eggs dry out quickly in the air, forcing all amphibians to lay their eggs in the water. The amphibian class is the smallest of the vertebrate classes, and includes about 4, species. Amphibians utilize lungs rather than gills for obtaining oxygen, and generally have soft skin. Amphibians usually spend some of their time on land and in water, though of course they must return to the water when they reproduce. Examples of amphibians are salamanders, newts, toads, and frogs. Several examples of amphibians are shown below from left to right, Ensatina salamander, American toad: Reptiles Reptiles are the second of the four-legged vertebrate classes, and are much better adapted to living on land than amphibians. Some of these adaptations include amniotic eggs, tough skin coated by keratin, and a respiratory system with branching bronchial tubes in the lungs. Other characteristic features are the process of molting, whereby a reptile sheds its outer skin, teeth adapted for holding rather than chewing prey reptiles swallow their prey whole rather than chew it , good hearing, and a tongue that can smell as well as taste.

Snakes are also ectothermic, or cold-blooded, and must rely on natural conditions to maintain an optimum body temperature. Reptiles today encompass about 7, species, although before the extinction of the dinosaurs reptiles were the dominant vertebrate animal. Examples of reptiles are turtles, tortoises, crocodiles, snakes, and lizards. Several reptiles are shown below from left to right, timber rattlesnake, nile crocodile, mud turtle: Birds Birds are mammals characterized by the presence of adaptations allowing flight although not all birds have the ability to fly , and include about 10, species. These characteristics include feathers, forelimbs that have evolved into wings, hollow bones, and very few vertebrae to reduce weight. In addition, birds have evolved an extremely specialized respiratory system including lungs with openings at both ends and air sacs to help in the movement of air through the lungs. These specializations allow birds to maintain the high levels of oxygen necessary to fuel their extremely fast metabolism. Birds are endothermic, and so heat themselves rather than relying on heat from their environment. Several examples of birds are shown below from left to right, broad-tailed hummingbird, bald eagle, American robin: Mammals Mammals are both the most diverse and the most advanced of all the groups in the kingdom Animalia, though they make up only about 4, species. Mammals are the only animals that nourish their young using milk produced by mammary glands, and also are the only animals that have teeth specilaized between species for different functions. In addition, mammals have skin covered by hair, which serves to insulate the body and regulate body temperature, a four-chambered heart and efficient circulatory system, four limbs, and highly developed brains. Mammals are warm-blooded endothermic and have a high metabolism similar to birds, allowing them to be active and move quickly. Mammals have adapted to live in a variety of environments, including on land throughout the world, in the air, and in the sea. Mammals make up the largest animals both on land and in the sea. This class includes animals as diverse as the platypus, koala, wolf, cat, cow, pig, whale, dolphin, bat, and human. Several examples of mammals are shown below from left to right, duck-billed platypus, African elephant, Sumatran tiger, killer whale, gorilla, red fox:

Chapter 9 : Reptiles | blog.quintoapp.com

Reptiles, like amphibians, make up a fairly small proportion of terrestrial animalsâ€"but in the form of dinosaurs, they ruled the earth for over million blog.quintoapp.com are four basic types of reptiles: crocodiles and alligators, turtles and tortoises, snakes, and lizards.

Madagascar Iguanids Interesting Fact: Madagascan iguanas have many features that are similar to normal Iguanas. Studies show that DNA of the two families split some millions years back, making them two different species. Opluridae has 7 species under 2 genera. These lizards are found abundantly in Madagascar, the most famous species being collared iguana. Trees, rocks, sand dunes. Komodo Dragons Interesting Fact: Komodo dragons are the biggest and heaviest lizards on Earth. The largest Komodo dragon ever found was This family has the largest living lizards. Monitor lizards have a diverse geographical range and are found in almost all terrains. Varanidae are large, with long necks, powerful tail and claws they use to tear flesh and dig burrows. Deserts, tropical rain forests, coastal areas, mountains. Komodo dragon and Monitor lizards. Neotropical Ground Lizards Interesting Fact: When fighting for a mate, these lizards stand high on all fours, usually sideways to their opponent to maximize their apparent size and bob up and down. Most lizards in this species are ground-dwelling. The color, patterns and even the size of these lizards vary according to their environment. South America and the West Indies. Night Lizards Interesting Fact: Night lizards give birth to young ones at a time. The young lizards live with their mother, father and siblings for one year. However, these young lizards, roughly the size of a toothpick, are not dependent on the parents. Xantusiidae is a family of very small lizards 4 cm to 12 cm long that live under rocks, inside tree trunks etc. All species in the family are viviparous giving birth to live young. Night lizards have a flat head and body. Their eyes, like those of snakes, are covered by a transparent membrane. Rock crevices and damp logs. Small insects, termites and plants. Plated Lizards Interesting Fact: Plated lizards make excellent pets as they are usually quite tame and docile. Being omnivorous, these lizards quickly adapt and are commonly traded in pet shops as exotic lizards. Some species of the family have all four fully developed limbs, and others with vestigial hind limbs only. The heavy coat of plate like scales acts as an excellent armor, making them almost invulnerable to predators. Live crickets, small amounts fruits and vegetables. It is a misconception that the blue-tongued skink is a venomous species of lizard. The deep-blue tongue of the lizard contributes to this belief, but it is not true. Blue-tongued skink only displays its prominent blue tongue to intimidate potential enemies or when disturbed. Scincidae are the second most diverse family of lizards after geckos. Most species have elongated bodies, no pronounced neck and their legs are relatively small. Some species have no limbs at all. Desert, mountains, grassland and burrows. Crickets, grasshoppers, beetles, caterpillars and small rodents. Spectacled Lizards Interesting Fact: Spectacled lizards can see with their eyes closed. Spectacled lizards are generally small lizards with most species having reduced limbs, however, mostly the hind limbs are reduced or absent, rather than the forelimbs. In general they look a lot like skinks. Central America and South America. Deserts, mountains and rainforests. Spinytail lizards Interesting Fact: The tropical girdled lizard is exported from Tanzania and Mozambique for the pet trade. Apart from the flattened heads and bodies, the most distinguishing feature of these lizards is the heavy armor of large, rectangular scales arranged in regular rows around the body and tail. Rings of spines are present on the tail in many species, which is used for defensive purposes. Southern and Eastern Africa. Crevices in rocky terrain, burrows and tree trunks. Tegus and Whiptails Interesting Fact: Some species of whiptail lizards have all-female or nearly all-female populations. These lizard reproduce by parthenogenesis process of asexual reproduction. Lizards in the Teiidae family have distinguishing features like scales on the head and a forked, snake-like tongue. They all possess well-developed limbs. Northern and Central South America. Insects, fruits, seeds, various arthropods, small vertebrates, carrion and eggs. Gold tegu, Argentine black and white tegu. True or Wall Lizards Interesting Fact: Most species of wall lizards are sexually dimorphic, which means that males and females have different patterns. Lacertidae has some of the most commonly seen lizards in the world. The family is diverse with hundreds of species. These lizards have slender body, long tail and varied patterns and colors. They have large scales on the head, granular scales on

the back and rectangular ones at the bottom. Europe, Africa, and Asia. Diverse forest, grassland, desert, rocky arid areas Diet: Wood Lizards, Clubtails Interesting Fact: Wood lizards are quick and often hide in burrows and under logs, and lead a very secretive life. This is one of the reasons why studies are not carried out on these lizards. Lizards in this family are predominantly terrestrial. They forage the tropical forest for small insects. Most species have spiny tails, which they use to dig shallow retreats in the ground. Very limited studies have been done on this family of lizards. Central and South America. Worms crickets and other small insects. Not all lizards are docile and human-friendly. Lizards that bite humans are very rare, many lizards are suspicious and scared around humans. Except for the Komodo dragon, no lizard species is harmful to humans. Although the Gila monster and Beaded monster are venomous, the venom is not fatal to humans.