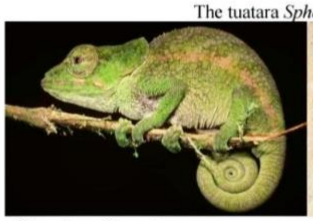
CHAPTER 5

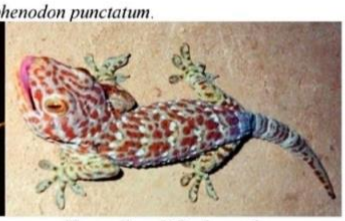
Requirements:

- **Name and Classification**
- **Morphology characteristics**
- **Explanation**

The tuatara *Sphenodon punctatum*.



Chameleon *Chameleon sp.*



House lizard *Gecko gecko*

Wild lizard

uromystix

Gila monster *Heloderma sp.*

Monitor lizard *Varanus sp.*

Skink *Mabuia sp.*

Rattlesnake *Crotalus sp.*

Tuatara (Sphenodon punctatus):
- Common Name: Tuatara
- Phylum: Chordata
- Class: Reptilia
- Order: Rhynchocephalia
- Family: ~~Sphenodontidae~~
- Genus: Sphenodon
- Species: punctatus

Special features
1. Body small, elongated, lizard-like.
2. Skin covered by granular scales and a mid-dorsal row of spines.
3. Skull diapsid, nasal opening separate.
4. Third eye on the top of the head called vestigial pineal eye or parietal eye.
5. Teeth present.
6. Limbs pentadactyle, clawed and burrowing.
7. Cloacal aperture transverse.
8. No copulatory organ in male.

Chameleon (Chamaeleonidae sp.):
- Common Name: Chameleon
- Phylum: Chordata
- Class: Reptilia
- Order: Squamata
- Family: Chamaeleonidae

House Lizard (Gecko gecko):
- Common Name: House Lizard
- Phylum: Chordata
- Class: Reptilia
- Order: Squamata
- Family: ~~Gekkonidae~~
- Genus: Gecko
- Species: gecko

Wild Lizard (Uromastyx sp.):
- Common Name: Wild Lizard
- Phylum: Chordata
- Class: Reptilia
- Order: Squamata
- Family: ~~Agamidae~~
- Genus: Uromastyx

Gila Monster (Heloderma sp.):
- Common Name: Gila Monster
- Phylum: Chordata
- Class: Reptilia
- Order: Squamata
- Family: ~~Helodermatidae~~
- Genus: Heloderma

Monitor Lizard (Varanus sp.):
- Common Name: Monitor Lizard
- Phylum: Chordata
- Class: Reptilia
- Order: Squamata
- Family: ~~Varanidae~~
- Genus: Varanus

Skink (Mabuya sp.):
- Common Name: Skink
- Phylum: Chordata
- Class: Reptilia
- Order: Squamata
- Family: ~~Scincidae~~
- Genus: Mabuya

Rattlesnake (Crotalus sp.):
- Common Name: Rattlesnake
- Phylum: Chordata
- Class: Reptilia
- Order: Squamata
- Family: ~~Viperidae~~
- Genus: Crotalus

Special features (Squamata)
1. Body elongated small to medium size.
2. Exoskeleton of horny epidermal scales, shields and spines.
3. Skull diapsid.
4. Teeth present.
5. Lower jaw is composed of several pieces of bones.
6. Cloacal aperture is transverse.
7. Male with eversible double copulatory organs (hemipenes).

This biggest reptilian order includes about 6800 species of lizards and snakes. The lizards and snakes possess distinct characteristic features. So it will be better to study this order up to suborders.

TABLE 1: Differences between suborders lacertilia and ophidian.

	Suborder Lacertilia or Sauria (Lizards)		**Suborder Ophidia or Serpentina (Snakes)**
1	Body elongated and flattened.	1	Body slender and narrow.
2	Eyelids movable nictitating membranes present.	2	Eyelids fixed nictitating membranes absent.
3	Maxillae, palatines and pterygoids fixed.	3	These skull bones freely movable helping in biting mechanism.
4	Two rami of mandible firmly united anteriorly. Mouth non- expansible	4	Mandibular rami joined by an elastic ligament and can be widely separated during swallowing of large prey.
5	Premaxillae bear conical teeth	5	Premaxillae are toothless
6	Tongue rarely notched or extensile	6	Tongue slender, bifid and extensile.
7	Limbs and girdles usually well developed	7	Absent, vestigial hind limbs and pelvic girdle in boa, python, etc.
Examples: *Phrynosoma* (horned lizard), Chamaeleon, *Heloderma*(gila monster),*Gecko* (giant house lizard), *Calote* (garden lizard), *Uromastyx* , *Varanus*, *Praco* (flying lizard), mabuia , iguana, *Ophisaurus*, etc (Fig.5).		**Examples: whip snake *Dryophis, Python, Boa,* rattlesnake *Crotalus,* cobra *Naja*…etc. (Fig.6).**	

Crocodile

Crocodile

- Phylum: Chordata
- Class: Reptilia
- Order: Crocodilia

Superorder Palaeognathae or Ratitae
The individuals of this superorder share the following characteristics:
1. Primitive structure of the palate, so named paleognaths.
2. Wings are greatly reduced.
3. Their sternum mostly lack keel so have no strong flight muscles (cann't fly).
4. Feathers without interlocking mechanism.
5. Pygostyle absent or reduced. The tail feathers show no arrangement.

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