

णमो अरिहंताणं

णमो सिद्धाणं

णमो आयरियाणं

णमो उवज्झायाणं

णमो लोएसव्वसाहूणं

# Life in Jain and Scientific Perspectives

Living organisms-- *in view of Jainism and a brief comparison with biological science*

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# Why Biology should be discussed so exhaustively in Jain scriptures ?

- *Universe is composed of six substances out of which jiva are very important*
- *Ahimsa* is one of the core principles of Jainism and this knowledge about classification of living beings is vital in minimizing violence (*himsa*). A lot of *himsa* can be avoided to some extent in a number of days to activities carried out by us with a better understanding of the visible and invisible life all around us
- To observe the great vow of non-violence (*ahimsa*), one should know what is animate & what is inanimate for proper fulfillment of difficult vow of *ahimsa*
- Substantially all organisms /*Jiva* are equal, the difference is only in the magnitude and degree of *karma* bondage with *atma pradesh* (soul) by which different forms exist. Every individual has equal right to survive.

# Jainagam & modern Biological Science

Why jainagam is an absolute science?

Because-

That is declared by omniscient by his supersensuous(perfect) Knowledge ( *kewal gyan* , *atindriyagyan*), which knows all substances & its forms at a time /at a glance  
*kewal gyan is a serva parigyan i.e.know all deciplines & faculties*

How it differs from Biological science?

- Biological Science is confined only up to Sensitive knowledge & Scriptural knowledge (*mati gyan & shrut gyan*) level

*Whereas Biological science Is confined only up to one discipline & one faculty*

## Jainism and Biological Science classification: - A very brief comparison (at a glance)

### Jainism Classification

- *Jainagam* is an absolute (complete) science
- Jiva are described at very microlevel (sukshm) i. e. sub-micro-organism/nigodia.
- In Jain scriptures all living organisms are divided into two domains - mobile ( *tras*) and Immobile(*sthavars*)

### Biological classification

- Science is not as absolute (complete) as *jainagam*
- *No description of nigodia jiva*
- In Biological science all living organisms are divided into two kingdoms - Animal kingdoms and Plant kingdoms

- In Jainism, all living beings are classified on the basis of number of sense organs, kind of birth, Land of habitat(*karam bhumī*, *bhog bhumī*)etc

- while in biological science they are classified on the basis of physical characteristics, presumed natural relationship, body structure (internal and external), morphology, features, habits, habitats etc.

- Sequential pattern of classification is not found in Jain scriptures as in biology.

- In biological science, every individual is broadly classified in a sequence of domain, kingdom, phylum, class, order, family, genus, species, variety etc.

- In Jainism classification *Bhog bhumī* and *Karam bhumī*, lives have their own characteristics and features

- in science there are no any such geographical area (land) identified and differentiated.

- Differentiation of organisms on the basis of vital powers (*pran*), *paryaptak* and *aparyaptak*, *lubdhiparyaptak* are seen in Jainism classification.

- According to Jain scriptures *Akshay anant* (infinite, innumerable) Jiva (organisms) are in the *loka* (cosmos) which are known by omniscient (*sarvgya kevali*) only. however 199.5 lakh crore (*kul*) families of *samsari jiva* are mentioned in principle Jain scriptures.

- Jainism classification is well documented in principle Jain scriptures like *Kashayapahud*, *Shatkandagam* etc 2250 years ago.

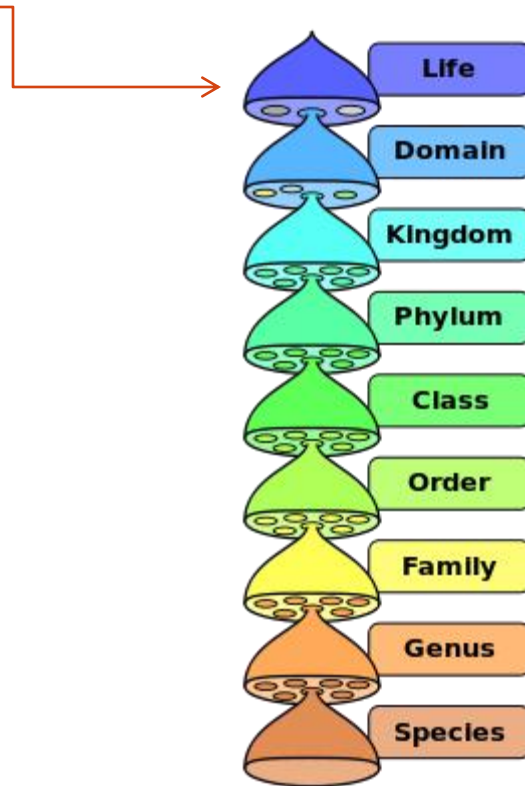
- but biological classification has no such consideration

- In biological science about 8.7 million species have been estimated and many more are being added every year. About 1.8 million have been given scientific name. Indefinite numbers are still unknown.

- Biological classification came into existence only 250 years ago & Carlolus Linnaeus (1707-1778) system of classification was followed first later on it was refined time to time by many biologist.

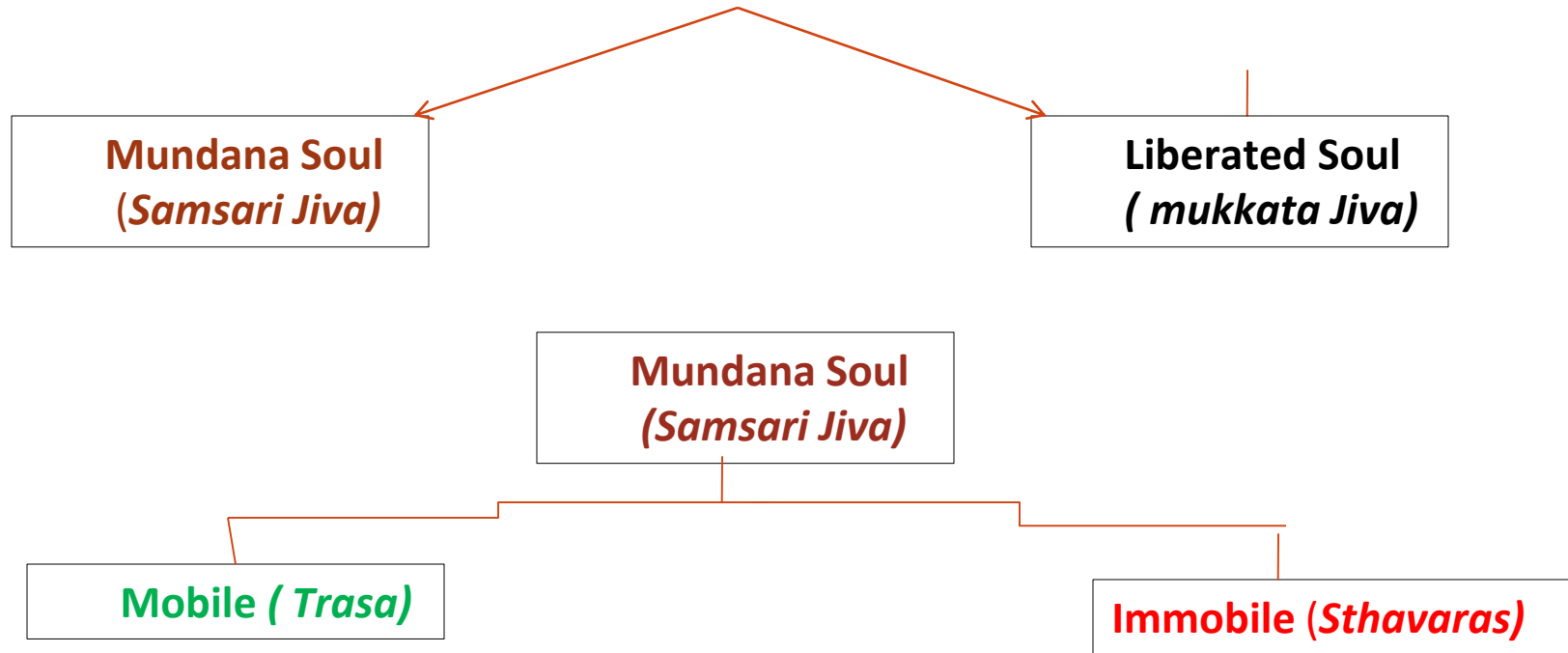
# Sequence of classification

In Biological Science



# Life is characterized by soul and has classified in different ways in Jain scriptures /Jainagam

## Living Organisms/*Jiva* (Soul)



Reference → (I) Microbiology to Pure soul –Acharya Kanak Nandi  
Guru Deva,( II) Karttikeyanuprksa- Karttikeya

**Mobile ( *Trasa* )**

**Two sensed  
(*dvindriya*)**

**Three sensed  
(*trindriya*)**

**Four sensed  
(*chaturindriya*)**

**Five sensed  
(*panchandriya*)**

**Immobile( *Sthavaras* )**

**Earth boided  
(*prathvikaya*)**

**Water boided  
(*jalkaya*)**

**Fire boided  
(*taijaskaya*)**

**Air boided  
(*vayukaya*)**

**Plant bodied  
(*vanaspatikaya*)**

**Five sensed  
(*panchandriya*)**

**Five sensed Rational  
(*panchandriya -sangi*)**

**Five sensed irrational  
(*panchandriya- asangi*)**

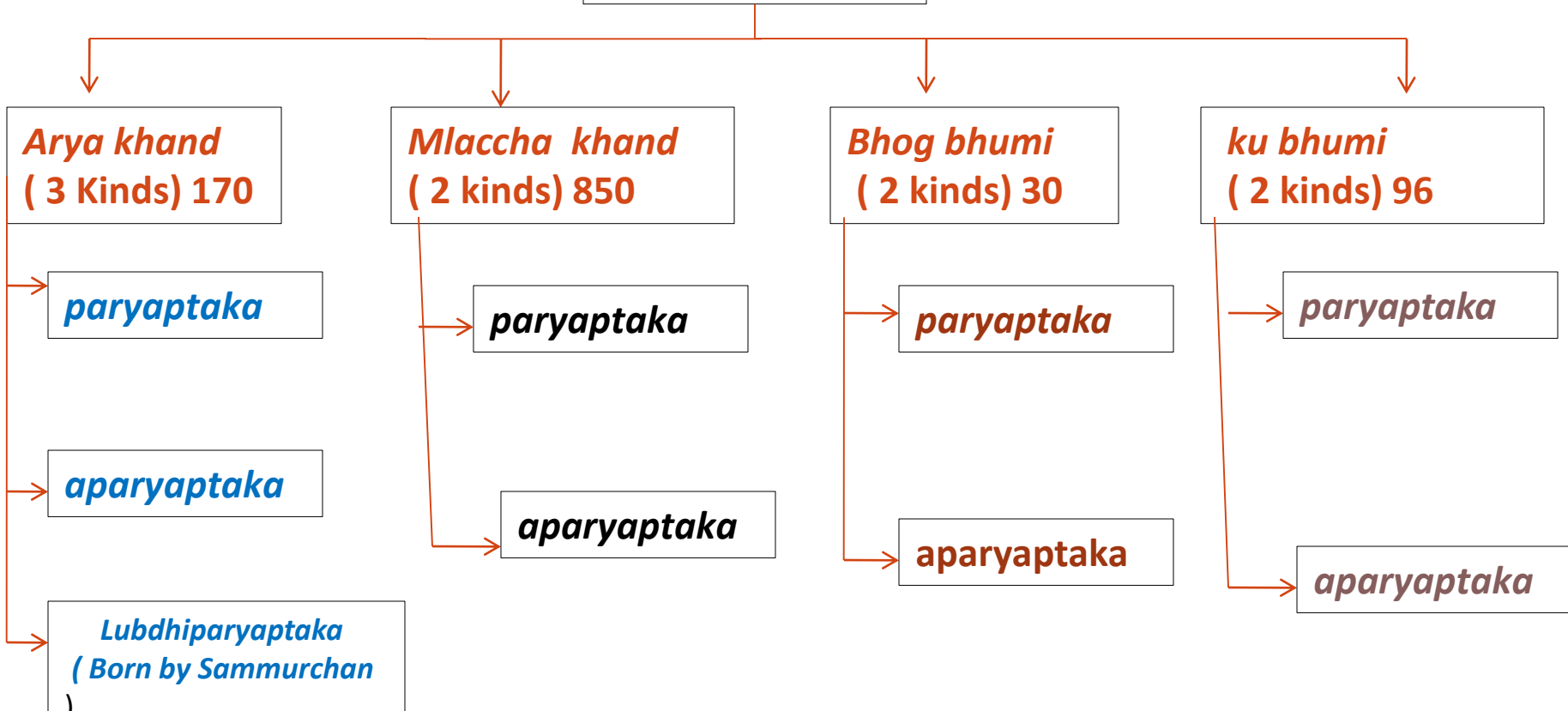
# Five sensed Rational (*panchandriya -sangi*)

(kartikeyanupreksha,132)



Human- beings  
(*manuish*) 9 kinds

Uterian Birth  
( 9 kinds)



**Vital powers(*Prana*):** Ten physical powers viz; age, respiration, 5 sense organ and 3 *bal* provide *prana* in living organisms.

The vital powers in different kind of organisms are as follows:

Sensed organ	Paryaptak*	Aparyaptak**
One sensed	4 prana	3 prana
Two Sensed	6 prana	4 prana
Three Sensed	7 prana	5 prana
four Sensed	8 prana	6 prana
Five Sensed rational	10 prana	7 prana
Five Sensed irrational	9 prana	7 prana

Ref- Microbiology to pure Science page154-163

**\* Paryaptak** -Jiva consist of all 6 type of bio- potentials /powers (food, body, sense organ, respiration, speech & mind

**\*\* Aparyaptak** Nivratparyaptak):Missing of any one bio- potential out of 6 bio-potential (until the jiva doesn't obtain all six paryapti)

**Lubdhiparyaptak** :-Die before attaining bio-potentials

( Karttikeyanupreksha ,137/135/139),Microbiology to pure soul352-55

Sub-human being  
(*tirinch*)  
85 kinds

( Karttikeyanupreksha ,131)

← Uterine Birth (16 types)

← Karam bhumij

Bhog bhumij →

Aquati (2)  
(Jalchar)

Terrestrial(2)  
(Thalchar)

Aerial (2)  
(Nabhchar)

Terrestrial (1)  
(Thalchar)

Aerial(1)  
(Nabhchar)

Sangi &Asangi

Sangi & asangi

Sangi & asangi

Sangi

Sangi

Each type has paryaptak & aparyaptak thus  $2 + 2 + 2 + 1 + 1 = 8 \times 2 = 16$   
types of uterine birth in *karam bhumi* & *bhog bhumi*

Sub-human being  
( *panchandriya tirinch* )  
6 types

( Karttikeyanupreksha 129,)

Smmurchan birth (Spontaneous rise) in  
Karam bhumi only



*dvindriya, trindriya & chaturindriya (vikleindriya)* are born  
in *Karam bhumi* by *smmurchan* thus there are 3 categories

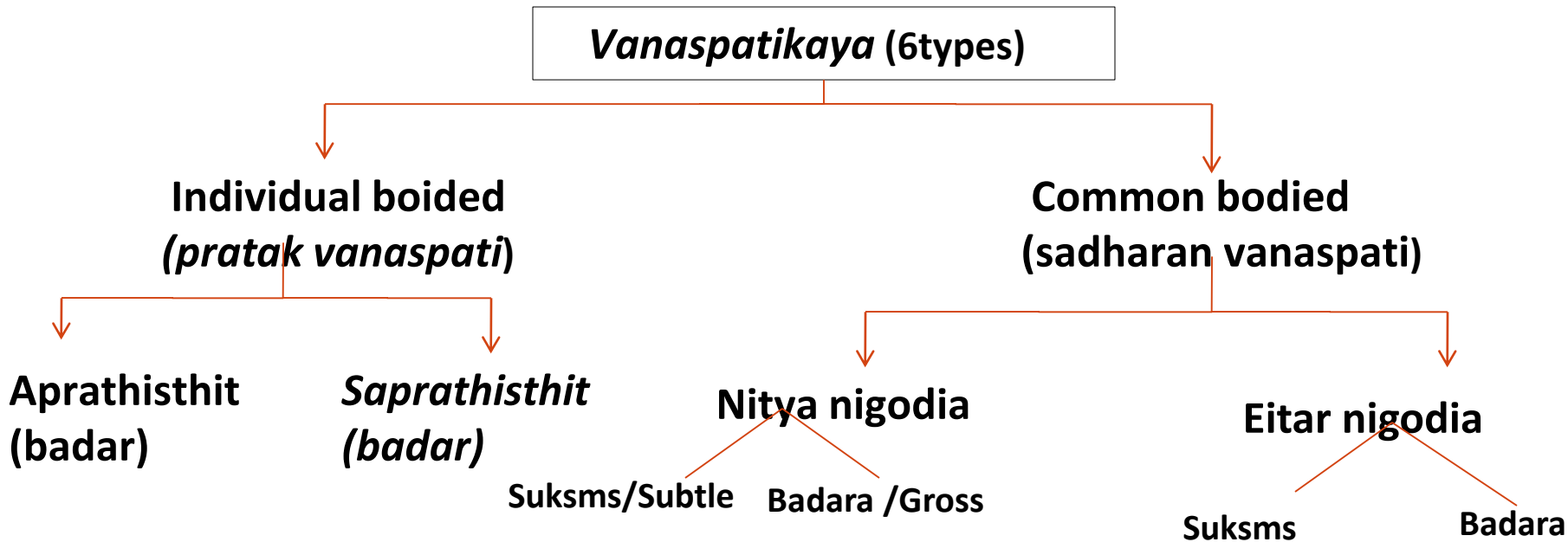
*Ekendriya smmurchan birth*  
(14 types)



\* Each of them are found in two forms i. e. subtle (*suksms*) & gross (*badar*) thus 8 types of *ekendriya*

**Suksms/Subtle**:- *sthavars* are distributed all over the *loka* /cosmos, they are neither create any obstacle nor obstructed by any one & arise by the result (fruit) of *suksma nama karma*. *They are not perceivable by sense organs*.

**Badara /Gross** :-those aggregates/*skandh*, which are perceivable by sense organs & arise by the result (fruit) of *badar nama karma*



**Individual boided(pratak vanaspati)**:-**Plat in which each soul possess its own physical body & arise by the result (fruit) of *pratak vanaspati nama karma***

**Common bodied (sadharan vanaspati)**:-**Plant in which many souls share one common physical body & arise by the result (fruit) of *sadharan vanaspati nama karma***

(Jain Biology page 110-11)

**Nigod**— Infinite number of sub-microorganism live in a micro body are called nigod. All these sub microorganisms are born together, die together, breathe together, eat together. Their physical body is common but subtle bodies, fiery and karma are distinct.

**Nitya nigod**- when an inactive sub microorganism never comes out from nigod from infinite period but in future may have chance to take birth as mobile (trasa)form or immobile( sthavar)beings and become active soul.

**Either nigod**-The sub-microorganism once come out from nigod & obtain different forms & took rebirth again in nigod.

(Scientific exploration of Jain Doctrines page 203 &251)

**Aprathisthit**:-General body free from nigodia badara(large nigod organisms),non-host without common parasite.Plants whose bark of root, stem, twig, leaf, fruit ,seed etc.are thin and can not be broken into two equal halves by jerks and fiber like thing appear between two halves e.g.ripen fruits of mango, coconut, tamarind ,talfal etc

**Saprathisthit**:-nigodia badar are habitat in general body. Individual host with common parasite. Plants whose bark of root, stem, twig, leaf, fruit, seed etc are thick and can be broken into two equal halves by jerks and no fiber like thing appear between two halves

(Microbiology to pure soul ,p 332-37,Karttikeyanupreksha 66-68)

Celestial  
(deva)2 kinds

Up-pad birth(Instantaneous

Paryaptak

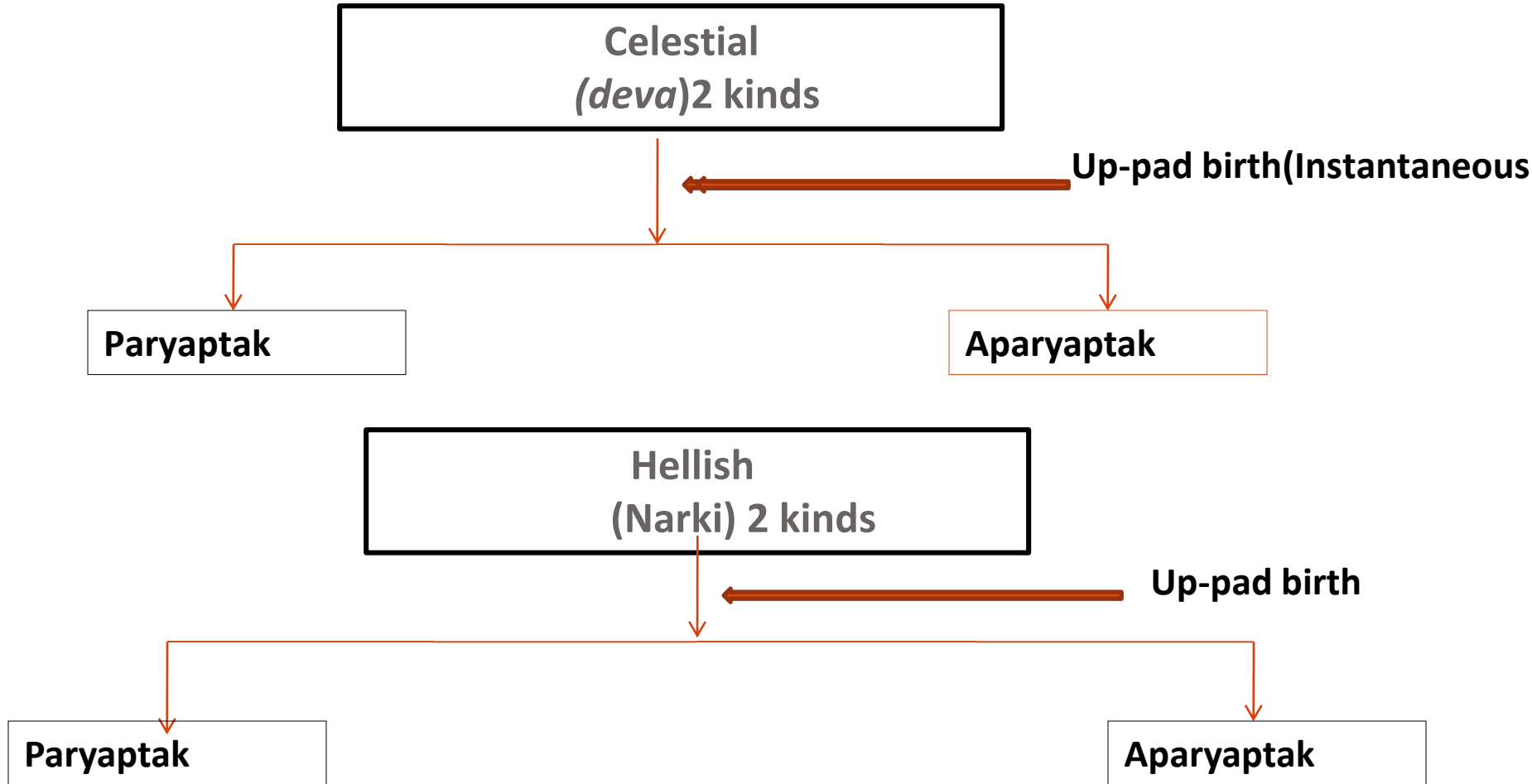
Aparyaptak

Hellish  
(Narki) 2 kinds

Up-pad birth

Paryaptak

Aparyaptak



So there are total 23 kinds of *Smmurchan tirianch* in *Karam bhumi*

$$6 \text{ (panchandriya)} + 3 \text{ (viklendriya)} + 14 \text{ (ekendriya)} = 23$$

Every one has **Paryaptak, Aparyaptak & lubdhiparyapak** therefore ,

$$23 \times 3 = 69 \text{ types of } jiva \text{ born by } smmurchan \text{ in } karam \text{ bhumi}$$

*total tirianch( panchandriya & viklendriya) in bhog bhumi & karam bhumi by uterine & smmurchan birth are :-*

$$16 + 69 = 85$$

Therefore, ( **9- human beings/manuish** =+ **85- sub-human beings ( tirinch)** + **2 celestial ( deva)** +**2 Hellish (narki)** = **98** categories of mundane souls ( *samsari jivasamas*) are found in the *loke*. Entire samsari jiva are confined in these 98 jivasamas. Which are further elaborated in 199.5 lakh cror (*kul*) families & 84 lakh *yonijati*

Details of 199.5 lakh cror (*kul*) families of *samsari jiva* (mundana soul)  
*Gommathsar (jiva kand)117/278/6*

Prathvikayak	22
Jalkayak	7
Agnikayak	3
Vayukayak	7
Vanaspatikayak	28
Dvindri	7
Trindri	8
Chaturindri	9
Panchanindriya(jalchar)	12.5
Panchanindriya(Nabhchar)	12
Panchanindriya(thalchar)	10
Panchanindriya(thalchar snakes	9
Narki	25
Deva	26
Manuish	14
Total	199.5 lakh cror ( <i>kul</i> ) families of
-----	<i>samsari jiva</i>
	-----

# Classifying Living Things in Biology

## - in Two Kingdom Classification

- We put living things into two large groups:

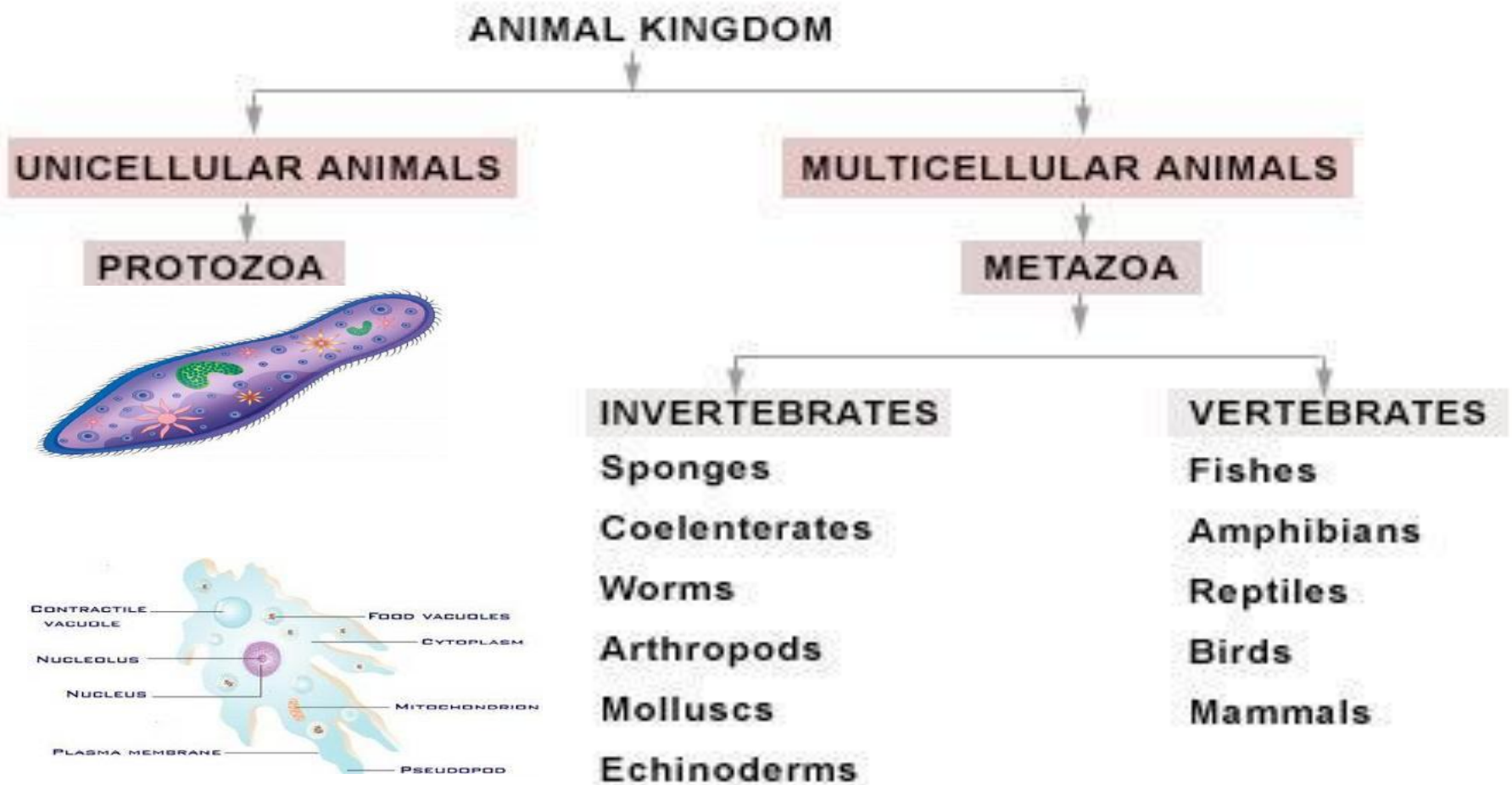
— Animals



— Plants



# Classification of animals



# Animals

- Animals are spilt into two major groups:

- Vertebrates



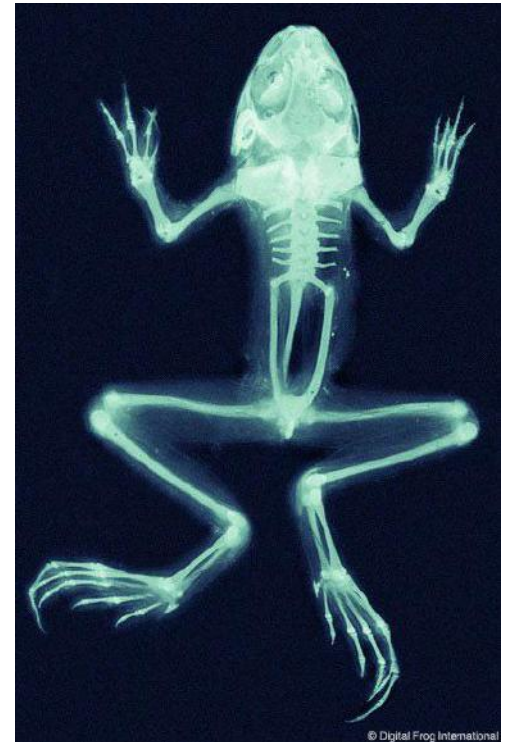
- Invertebrates



# Vertebrates

- These are animals with a backbone.
- There are five groups of vertebrates:

- Amphibians
- Birds
- Fish
- Mammals
- Reptiles





# Amphibians

- Have moist skin
- Lay jelly coated eggs in water
- Lives on land and water





# Birds

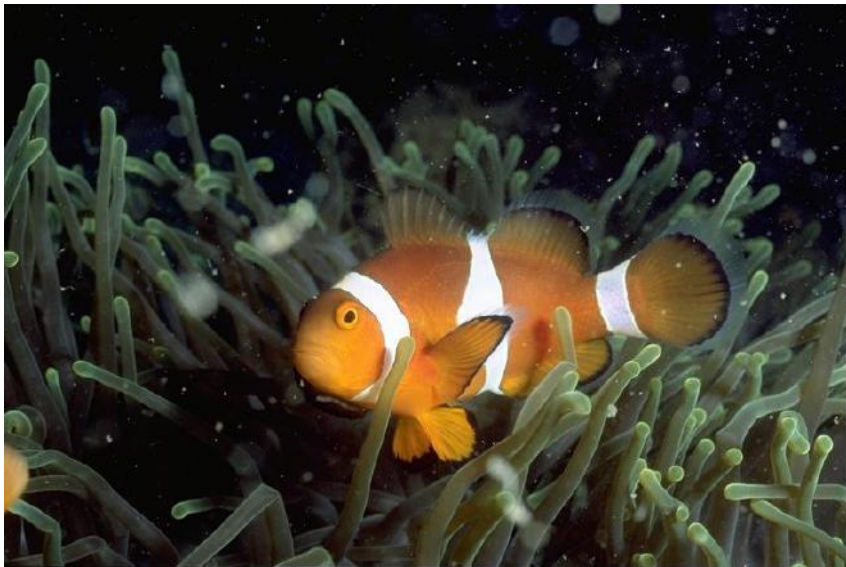
- Have feathers and hollow bones
- Lay hard shelled eggs
- Warm blooded





# Fish

- Have wet scales
- Lays eggs in water
- Lives in water





# Mammals

- Have hair and produce milk
- Give birth to live offspring (no eggs)
- Warm blooded



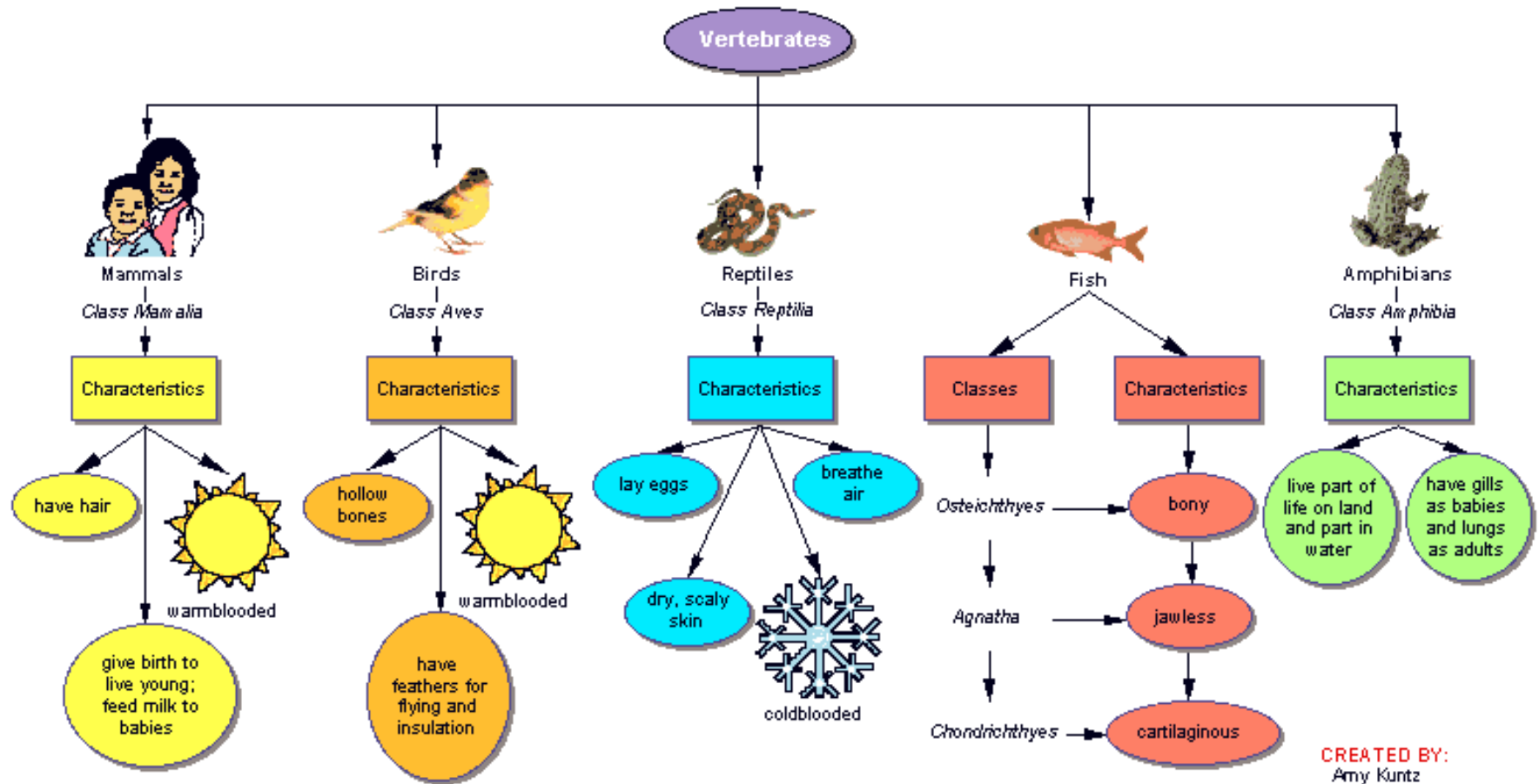


# Reptiles

- Have dry scales
- Lay leathery shelled eggs
- Cold blooded



# Summary of Vertebrates



CREATED BY:  
Amy Kuntz  
Speech-Language Pathologist  
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# Invertebrates

- These are animals without a backbone
- There are eight groups of invertebrates

- Molluscs
- Flatworms
- Annelids
- Roundworms
- Sponges
- Echinoderms
- Cnidarians
- Arthropods





# Molluscs

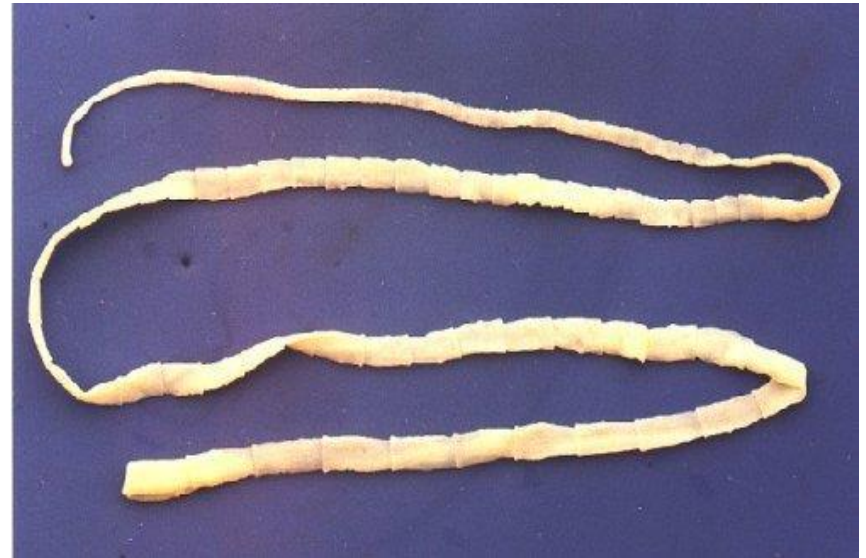
- Crawl on a single fleshy pad.
- Can have a shell





# Flatworms

- Have flat worm like bodies





# Annelids

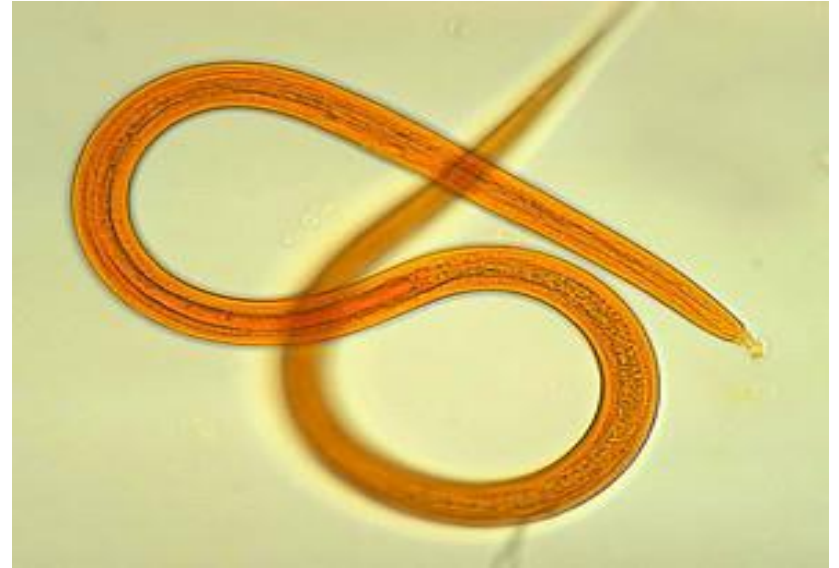
- Have round worm like bodies
- Have bodies divided into segments





# Roundworms

- Have long thin round worm like bodies
- Have bodies with no segments





# Sponges

- Have bodies made of loosely joined cells





# Echinoderms

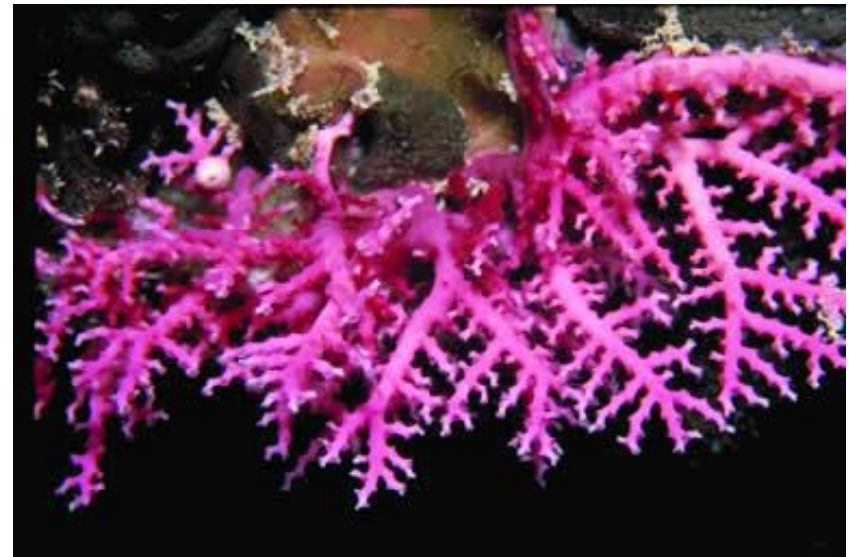
- Have bodies divided into five parts
- Have spiny outer covering





# Cnidarians

- Have thin sack like bodies
- Have tentacles



# Arthropods

- Have lots of legs and segmented bodies.
- There are four group of arthropods:
  - Arachnids
  - Centipedes & Millipedes
  - Crustaceans
  - Insects



# Arthropods - Arachnid

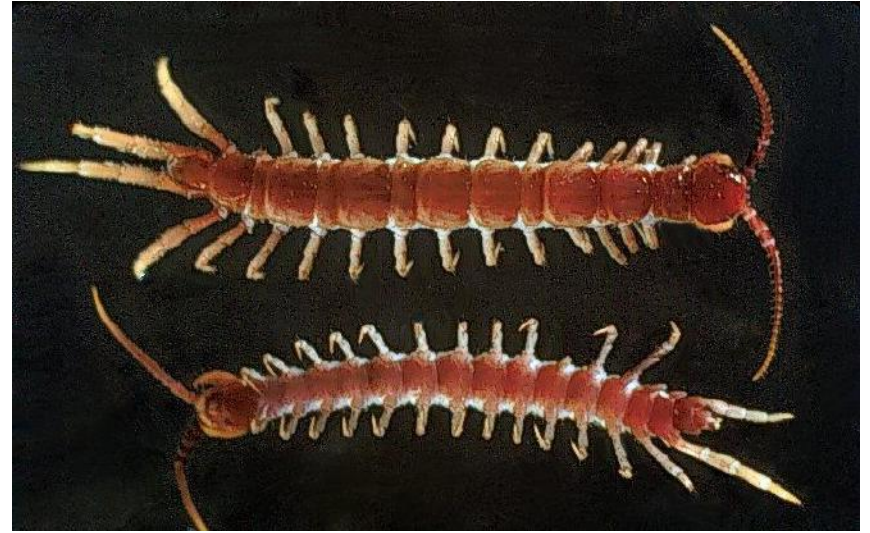
- Have four pairs of legs.
- Have bodies divided into two sections





# Arthropods – Centipedes & Millipedes

- Have long thin bodies and pairs of legs on each of their many body sections





# Arthropods - Crustacean

- Have five-seven pairs of legs
- First pair often used as pincers
- Bodies covered in shell



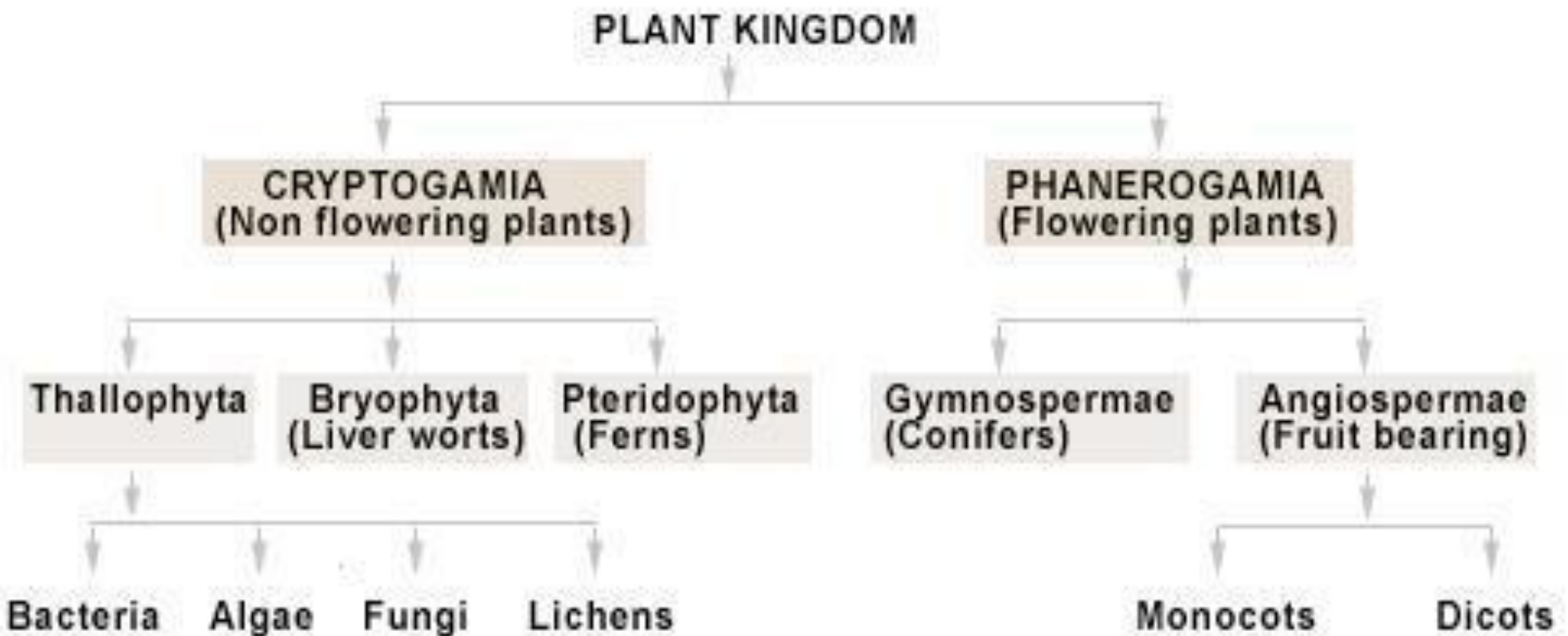


# Arthropods - Insects

- Have three pairs of legs
- Bodies divided into three sections
- Often have wings



# Classification of Plants



**Gymnosperm-Palm**



**Bryophytes- Mosses**



**Pterodophytes- Horsetail**





# Conclusion

- this paper explains classification of living organisms - *In view of Jainism and a brief comparison with biological science.*
- Through this paper, we have tried to understand all forms of life from Jainism point of view & biology point of view
- Substantially all organisms /Jiva are equal
- The difference is only in the magnitude and degree of *karma* bondage with *atma pradesh* (soul) by which different forms exist.
- *Ahimsa* is one of the core principles of Jainism and this knowledge about classification of living beings is vital in minimizing *himsa*. A lot of *himsa* can be avoided to some extent in a number of days to activities carried out by us with a better understanding of the visible and invisible life all around us.

# जय जिनन्द्र

