

2012

MARCH

FRIDAY

WK 10 • 069-297

13	14	15	16	17	18	19
20	21	22	23	24	25	26
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FEBRUARY 2012

# 09 Macroevolution

Evolution is a process of change.

When evolutionary changes involve in a number of species population and usually occurs above the species level, it is called macro-evolution or 'adaptive radiation'. Macroevolution is characterized by (i) Subdivision of the group into many new sub groups. (ii) an invasion of numerous new environmental situation (iii) diversification of structure and biology. While microevolution and speciation tend to produce special adaptation, macroevolution usually develops from a general adaptation with a number of special adaptations following from the general one.

Example - Marsupials and placental mammals, eg. native cat (*Dasyurus*) and cat (*Felis*) among marsupials; flying phalanger (*Petaurus*) and



Glaucomys among placentals, show parallel adaptational features although they belong to divergent groups.

Mega evolution:- When, on rare occasions, new combination of characteristics cause the appearance of new biological organisation of general adaptation. Then these are called Mega evolution.

Ex. Evolution of vertebrate classes, such as from fish to amphibian, from amphibian to reptilia, from reptalia to birds etc.

All the above mentioned level differ considerably from one another in fundamental features, but all are based upon micro evolution and contribute to the adaptation. Micro evolution causes sequential adaptive changes.

2012  
MARCH  
MONDAY  
Wk 11 • 072-294

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FEBRUARY 2012

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While macro and mega evolution produce divergent adaptation. At all level, the result of evolution is same. i.e, the development of organisms adapted to a changing environment and having a more efficient relation with the present environment than their predecessors.

9 am  
10 am  
11 am  
12 noon  
1 pm