

Scientists around the world use a standardized system for classifying species of plants and animals. This so-called “Linnaean Classification System”—named for its inventor, Carl Linnaeus—has been used for over 250 years to help scientists communicate about biological diversity and, more recently, evolutionary relationships. In this system, closely related species are assigned to the same genus. Similarly, closely related genera are assigned to the same family. Likewise for families assigned to orders, orders assigned to classes, classes assigned to phyla, and phyla assigned to kingdoms.

Each one of the levels in the classification is a rank and members of the same rank are hypothesized to be more closely related to one another than to other groups at the same rank.

Kingdom Animalia

### **CORALS- Cards P, W, L, Q, J**

Card P: A stony "starlet coral" that lived in shallow water and built reefs; fed by grabbing small bits of food that passed by using very small, stinging tentacles.

Phylum Cnidaria

Class Anthozoa

Order Scleractinia

Family Siderastreidae

Genus *Siderastrea*

Species *Siderastrea pliocenica*

Card W: A stony coral that lived in shallow water and built reefs; fed by grabbing small bits of food that passed by using very small, stinging tentacles. This species survives to the present day.

Family Meandrinidae

Genus *Meandrina*

Species *Meandrina meandrites*

Card L: A stony "brain coral" that lived in shallow water; fed by grabbing small bits of food that passed by using very small, stinging tentacles.

Family Faviidae

Genus *Solenastrea*

Species *Solenastrea hyades*

Card Q: A stony "rose coral" that lived in shallow water, but did not form reefs; fed by grabbing small bits of food that passed by using very small, stinging tentacles. This species survives to the present day.

Genus *Manicina*

Species *Manicina areolata*

Card J: A coral that lived in shallow water and encrusted (covered) the shells of snails; fed by grabbing small bits of food that passed by using very small, stinging tentacles.

Family Rhizangiidae

Genus *Septastrea*

Species *Septastrea marylandica*

### **ECHINODERMS- Cards F, C, D**

Card F: A "purple-spined" sea urchin (most fossils are missing their spines) that lived in shallow water on the sea floor and mostly ate algae (herbivore). This species survives to the present day.

Phylum Echinodermata

Class Echinoidea (sea urchins and sand dollars)

Order Arbacoidea

Family Arbaciidae

Genus *Arbacia*

Species *Arbacia punctulate*

Card C: A sand dollar that lived in shallow water and spent much of its time burrowed in the sand; fed on decaying matter in the sand (detritivore).

Order Clypeasteroidea

Family Mellitidae

Genus *Mellita*

Species *Mellita acclinensis*

Card D: A sea urchin that lived on the sea floor and had a shell covered in short spines.

Order Cassiduloidea

Family Cassidulidae

Genus *Rhyncholampas*

Species *Rhyncholampas evergladensis*

## **MOLLUSCS- BIVALVES- Cards A, O, M, B, K, S**

Card A: An ark clam that captured food particles from the passing water (suspension feeder).

Phylum Mollusca

Class Bivalvia

Order Arcida

Family Arcidae

Genus *Anadara*

Species *Anadara aequalitas*

Card O: A coquina clam that lived in huge numbers on the seafloor in shallow water; captured food particles from the passing water (suspension feeder).

Order Imparidentia

Family Donacidae

Genus *Donax*

Species *Donax fossor*

Card M: A spiny jewel box clam that lived on the seafloor; captured food particles from the passing water (suspension feeder). This species survives to the present day.

Family Chamidae

Genus *Arcinella*

Species *Arcinella cornuta*

Card B: A jewel box clam that lived on the seafloor; captured food particles from the passing water (suspension feeder).

Genus *Chama*

Species *Chama heilprini*

Card K: An egg cockle that lived on soft sediments on the seafloor and were able to move short distances using a powerful "foot"; captured food particles from the passing water (suspension feeder). This species survives to the present day.

Family Cardiidae  
Genus *Laevicardium*  
Species *Laevicardium mortoni*

Card S: A lucine clam that lived buried deep in the sediment; symbiotic bacteria allowed them to survive in habitats with little oxygen. Captured food particles from the passing water (suspension feeder).

Family Lucinidae  
Genus *Anodontia*  
Species *Anodontia santarosana*

## **MOLLUSCS- GASTROPODS- Cards G, H, R, U, X, E, T, V, I, N**

Card G: Sundial snail that fed on corals (carnivore). This species survives to the present day.

Phylum Mollusca  
Class Gastropoda  
Order Heterobranchia  
Family Architectonicidae  
Genus *Architectonica*  
Species *Architectonica nobilis*

Card H: Moon snail that crawled on the seafloor and hunted snails and clams; attacked its prey by drilling small holes in their shells (carnivore).

Order Littorinimorpha  
Family Naticidae  
Genus *Natica*  
Species *Natica precursor*

Card R: Conch that fed on algae (herbivore). This species survives to the present day.

Family Strombidae  
Genus *Strombus*  
Species *Strombus pugilis*

Card U: Hat snail that lived above the seafloor and fed on food particles from the passing water (suspension feeder). This species survives to the present day.

Family Calyptraeidae  
Genus *Calyptrea*  
Species *Calyptrea centralis*

Card X: Hat snail that lived above the seafloor and fed on food particles from the passing water (suspension feeder). This species survives to the present day.

Genus *Trochita*  
Species *Trochita floridana*

Card E: Rock snail that crawled on the seafloor and hunted snails and clams; attacked its prey by drilling small holes in their shells (carnivore).

Order Caenogastropoda  
Family Muricidae  
Genus *Hexaplex*  
Species *Hexaplex hertweckorum*

Card T: Turret snail that mostly rested on the seafloor and gathered food particles from the passing seawater (suspension feeder).

Family Turritellidae

Genus *Turritella*

Species *Turritella magnasulcus*

Card V: Whelk that hunted clams and used its shell to wedge open their shells (carnivore).

Family Buccinidae

Genus *Sinistrofulgur*

Species *Sinistrofulgur contrarium*

Card I: Cone snail that crawled on the seafloor and hunted and ate worms. This species survives to the present day.

Family Conidae

Genus *Conasprella*

Species *Conasprella jaspidea*

Card N: Olive snail that burrowed through the sand and fed on carrion (scavenger).

Family Olividae

Genus *Americoliva*

Species *Americoliva edwardsi*