Phylum Placozoa

One known species: *Trichoplax adhaerens*

* but newer genetic analysis indicates there might be up to 8 species
* one of simplest animals
  * least DNA/cell than any other animal
* small asymmetrical disc-shaped animal
* barely visible to naked eye 2-3 mm
  * few 1000 cells total
  * no tissues or organs,
  * little cell differentiation
* yet all other characteristics place it clearly in the animal kingdom
* phylum is based on a single species; *Trichoplax*
  * first discovered in 1883 from marine aquarium
    * until 1971 thought it was a larval cnidarian
* only known from walls of marine aquaria until 1980’s, when they were found throughout the Pacific Ocean

has dorsal and ventral; but no front, back or sides
  * dorsal of flat ciliated cells and spherical cells
  * ventral of columnar ciliated cells and gland cells
* between dorsal and ventral layer is fluid filled cavity
  * with some fibrous cells that can cause animal to contract
* can make amoeba like movements;
  * but movement mostly due to ventral cilia
    * moves in any direction
* probably feeds on algae and organic matter by covering it and secreting enzymes then absorbing the digested material

reproduces
  * asexual: by binary fission & budding
  * sexual: (has not been observed)