Have you ever heard that sentence "Evolution is just a theory!”?    
So is it indeed just a theory? Or is there any real evidence for that?   
Well, the answer is a little complicated.   
If you already know for sure that it's more than "just a theory" then you don't need any proof. On the other hand if you certain that there was no such thing as "Evolution" and human species had not evolved but created by god almighty , well in that case no proof will be strong enough to make you change your mind.  
So basically I try to approach those people who does not fall into two previous categories , maybe believing in evolution but only need something to hold on to just to be sure , maybe skeptical but open minded or anywhere between the edges of the scale of belief :)

Let's talk about fossils , according to Wikipedia : *"****Fossils*** *are the preserved remains or* [*traces*](http://en.wikipedia.org/wiki/Trace_fossil) *of animals (also known as zoolites), plants, and other organisms from the remote past"* as noted in this course in *"Charles Darwin's Evidence for Evolution"* article fossils can (in a way) prove evolution and that what this article is all about , so let’s start shall we ?

Even the simple fact that fossils are remains of past organisms was not so obvious at earlier ages, the first to claim so was Aristotle later Leonardo da Vinci agreed with this claim, then William Smith discovered that rocks of different ages had different types of fossils and rocks from different locations could be correlated according the fossils they contained, that information was one of the main evidences for Darwin’s discoveries. Georges Cuvier claimed that (almost) all the fossils are remains of extinct species.

And then came Charles Darwin. Everybody consider Darwin as “Father of theory of evolution” which is true because his contribution was the greatest (by far) then others before him, but he was not the first one to speak of evolution. Actually even his own grandfather claimed that evolution was a real thing. But at those times such claims were very uncommon since they declined the religious believes that god created all species as they are (more or less). Darwin (not a big fan of evolution theory at that time) went to five year voyage around the globe as naturalist.

During that voyage he encountered fossils that were very similar to modern species of same natural group. He then found fossils of extinct form of armadillo and of extinct giant ground sloth in Argentina , but since both armadillo and sloth only exist at South America he wondered how come those modern species and fossils both of which can be found only at this specific place resemble each other so much ? He understood that whatever caused the extinction of old species and creation of a new replacement species could not be explained by migration. It was actual natural replacement of species, either organisms adapt to environmental changes or perish.

This is actually evolution – process of change over generations. This discovery along with two other made Darwin a believer in evolution and posted his notes in a book “On the Origin of Species by Means of Natural Selection*”* which became “The bible of evolution”.

Those days fossils are still being used to get a better understanding and building a more complete tree of life (actually Darwin was the one who started adding fossils data to the tree of life built by Linnaeus) , but since trees are a whole new subject (and another proof of evolution) I’ll leave it out of this story .

 Two years after Darwin published his book a fossil of Archaeopteryx was found, verifying that birds had reptilian ancestors (dinosaurs), later fossils helped prove the theory human and apes had common ancestors and who know what amazing fossils are still out there, each helping understand relations among all modern species.

Sources:

<http://anthro.palomar.edu/evolve/evolve_3.htm> - Evidence of Evolution

<http://evolution.berkeley.edu/evolibrary/article/0_0_0/lines_02> - Fossil Evidence

<https://class.coursera.org/amnhevolution-001/wiki/view?page=evidence_for_evolution> - Charles Darwin's Evidence for Evolution

<http://en.wikipedia.org/wiki/Fossil> - Fossil

Thank you very much for reading! (Since I'm not native English speaker I would appreciate if you could ignore grammar mistakes)